

# Ohio University Bulletin

June 1981



Undergraduate Catalog 1981-82

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# Ohio University Bulletin

## UNDERGRADUATE CATALOG 1981-82

The fees, programs, and requirements contained in this bulletin are effective with the 1981 fall quarter.  
They are necessarily subject to change without notice at the discretion of Ohio University.

*Ohio University is an affirmative action institution.*



*Produced by the Office of University Publications, Don F. Stout, Director.  
Editor: Patricia L. H. Black; Cover Design: Paul Bradford;  
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## Academic Calendar, 1981-82

### Fall Quarter, 1981

- Sept. 11, Fri. . . . . Advising day.  
 Sept. 12, Sat. . . . . Class schedule adjustment day; registration day.  
 Sept. 14, Mon. . . . . Classes begin.  
 Sept. 25, Fri. . . . . Last day to register for fall quarter; last day to add a class; last day to receive partial refund of registration fees; last day to register for pass/fail course; last day to process a change order without paying fee; last day for filing application and paying fee for conferral of degree on November 25.  
 Sept. 28, Mon. . . . . Courses dropped will not remove fees for hours dropped; courses added will add fees, when applicable; first day for WP/WF; late registration begins (\$20 fee assessed effective this date).  
 Oct. 16, Fri. . . . . Last day to drop a class.  
 Oct. 23, Fri. . . . . Last day for removing incomplete grades incurred during last session enrolled.  
 Nov. 2-5 . . . . . Winter quarter preregistration and academic advising.  
 Nov. 11, Wed. . . . . Veterans Day (Offices closed; classes in session).  
 Nov. 17, Tues. . . . . Last day to withdraw from fall quarter.  
 Nov. 18, Wed. . . . . Last day of classes; degree candidates must have all required work completed.  
 Nov. 19, Thurs. . . . . Reading day.  
 Nov. 20, Fri. . . . . Examinations begin.  
 Nov. 25, Wed. . . . . Quarter closing date.

### Winter Quarter, 1982

- Jan. 4, Mon. . . . . Advising day; class schedule adjustment day; registration day.  
 Jan. 5, Tues. . . . . Classes begin.  
 Jan. 15, Fri. . . . . Martin Luther King Day (offices open; classes not in session 3-5 p.m.).  
 Jan. 18, Mon. . . . . Last day to register for winter quarter; last day to add a class; last day to receive partial refund of registration fees; last day to register for pass/fail course; last day to process a change order without paying fee; last day for filing application and paying fee for conferral of degree on March 20.  
 Feb. 8, Mon. . . . . Last day to drop a class.  
 Feb. 9-12 . . . . . Spring quarter preregistration and academic advising.  
 Feb. 15, Mon. . . . . Last day for removing incomplete grades incurred during last session enrolled.  
 Mar. 3, Wed. . . . . Last day to pay fees for spring quarter (to insure preregistration).  
 Mar. 12, Fri. . . . . Last day to withdraw from winter quarter.  
 Mar. 13, Sat. . . . . Last day of classes; degree candidates must have all required work completed.  
 Mar. 15, Mon. . . . . Examinations begin.  
 Mar. 20, Sat. . . . . Quarter closing date.

### Spring Quarter, 1982

- Mar. 29, Mon. . . . . Advising day; class schedule adjustment day; registration day.  
 Mar. 30, Tues. . . . . Classes begin.  
 Apr. 12, Mon. . . . . Last day to register for spring quarter; last day to add a class; last day to receive partial refund of registration fees; last day to register for pass/fail course; last day to process a change order without paying fee; last day for filing application and paying fee for conferral of degree on June 12.

- Apr. 13, *Tues.* . . . . . Courses dropped will not remove fees for hours dropped; courses added will add fees, when applicable; first day for WP/WF; late registration begins (\$20 fee assessed effective this date).
- Apr. 26-May 14 . . . . . Summer quarter preregistration.
- May 3, *Mon.* . . . . . Last day to drop a class.
- May 10, *Mon.* . . . . . Last day for removing incomplete grades incurred during last session enrolled.
- May 17-20 . . . . . Fall quarter preregistration.
- May 31, *Mon.* . . . . . Memorial Day (offices closed; no classes).
- June 1, *Tues.* . . . . . Last day to pay fees for summer quarter (to insure preregistration).
- June 4, *Fri.* . . . . . Last day to withdraw from spring quarter.
- June 5, *Sat.* . . . . . Last day of classes.
- June 7, *Mon.* . . . . . Examinations begin.
- June 12, *Sat.* . . . . . Quarter closing date; annual commencement.

## Summer Quarter, 1982

### First Term

- June 21, *Mon.* . . . . . Registration day; classes begin.
- June 25, *Fri.* . . . . . Last day to register for first five-week term; last day to add a class; last day to receive partial refund of registration fees; last day to register for pass/fail course; last day to process a change order without paying fee; last day for *undergraduate* student to file application and pay fee for conferral of degree on August 28; last day for *graduate* student to file application and pay fee for conferral of degree on August 28.
- June 28, *Mon.* . . . . . Courses dropped will not remove fees for hours dropped; courses added will add fees, when applicable; first day for WP/WF.
- July 5, *Mon.* . . . . . Independence Day observed (offices closed; no classes).
- July 6, *Tues.* . . . . . Last day to drop a class.
- July 23, *Fri.* . . . . . Last day of classes; examinations; degree candidates must have all required work completed (including work pending from previous quarters) and submitted to instructor.
- July 24, *Sat.* . . . . . Term closing date.

### Second Term

- July 26, *Mon.* . . . . . Registration day; classes begin.
- July 30, *Fri.* . . . . . Last day to register for second five-week term; last day to add a class; last day to receive partial refund of registration fees; last day to register for pass/fail course; last day to process a change order without paying fee; last day for *undergraduate* student to file application and pay fee for conferral of degree on August 28 (*graduate* student must have filed on June 25).
- Aug 2, *Mon.* . . . . . Courses dropped will not remove fees for hours dropped; courses added will add fees, when applicable, first day for WP/WF.
- Aug 10, *Tues.* . . . . . Last day to drop a class.
- Aug 27, *Fri.* . . . . . Last day of classes, examinations, degree candidates must have all required work completed (including work pending from previous quarters) and submitted to instructor.
- Aug 28, *Sat.* . . . . . Quarter closing date.

**Address Inquiries Concerning:**

Admissions information and acceptance of credits to the  
Office of Admissions, Chubb Hall

Athletics to Intercollegiate Athletics, Convocation Center

Campus tours to the Office of Admissions, Chubb Hall

Continuing education, independent study, workshops, conferences or  
institutes to the Office of Lifelong Learning, Tupper Hall

Curricula and undergraduate degree requirements to the  
office of the dean of the college in question

Financial aids, scholarships, loans and student employment to the  
Office of Student Financial Aids and Scholarships, Chubb Hall

Graduate study to the Office of Graduate Student Services, Wilson Hall

Housing to the Office of University Housing, Chubb Hall

Osteopathic Medicine to the College of  
Osteopathic Medicine, Grosvenor Hall

Registration, class schedules and veterans' affairs to the  
Office of Registration, Chubb Hall

Transfer students to the Office of Admissions, Chubb Hall

The University switchboard number is 614/594-5511

Ohio University, Athens, Ohio 45701

# Profile of Ohio University





## Profile of Ohio University

The charm of tree-lined brick walkways on Ohio University's College Green makes one feel as if one were at a small college rather than a large university. Much of what goes on at Ohio University has this personalized feeling, a unique trait for a school of its size.

The City of Athens, home of the University, is located about 70 miles southeast of Columbus. It's a small city on the banks of the Hocking River, surrounded by small farms on the hills and in the valleys, along with woodlands and state parks. The intellectual and cultural intensity of the University could have no better setting for privacy or meditation when it is needed.

The heritage of Ohio University goes back to the 18th century and the Ordinance of 1787, which included a provision for establishing the school. The University was actually founded in 1804, making it the first institution of higher learning in the old Northwest Territory.

The three oldest buildings on the College Green, red brick structures with wooden shutters, date from the early 19th century and are fine examples of Georgian architecture. One of them, Cutler Hall, in the center of campus, was built in 1816 and is now a National Historic Landmark.

The University provides a wide range of cultural activities for not only the University community but for all of southeastern Ohio. All of the lecturers, poets, singers, dancers, films, and theater or music groups appearing on campus are available within walking distance of the residence halls. Many events are free, though some do have nominal charges.

There are 12 state parks and thousands of acres of national forest within 40 miles of the campus. The parks have facilities for swimming, boating, camping, hiking, picnicking, and fishing. When one needs to get away, it's possible to walk for hours in the woods without running across dwellings, cars, or other people. But if city life is a necessity now and then, Columbus and Cincinnati are within reasonable driving distance.



## CAMPUS VISITS

The best way to know what our educational setting is like is to visit our campus. There's no better way to see what the living accommodations are like than to visit one or more of the three residential "greens" that surround the main campus. The greens are separate neighborhoods or communities within the University, adding to the personalized atmosphere of the Athens campus.

An admissions field representative can schedule appointments for you with faculty in your field of interest, or you may wish to write directly to the Office of Admissions, Chubb Hall, Ohio University, Athens, Ohio 45701. Guides are available year round and appointments are preferred but not required. Daily tours start at the Office of Admissions in Chubb Hall at 10 a.m. and 2 p.m., Monday through Friday and Saturdays at noon. The Office of Admissions is open for appointments 9 to 11:30 a.m. and from 1 to 4 p.m., Monday through Friday. On Saturdays, there is a group information session at 11 a.m.







## THE STUDENT BODY

We can safely say that a typical Ohio University student cannot be found. The one characterization we can apply to the student body is that it is culturally diverse. The exposure to other races, nationalities, religions, and ethnic groups is a basic part of an educational experience. Life in a city usually doesn't provide the diverse day-to-day contact one is likely to have on a campus, with students from all over the United States, as well as from Africa, Asia, Europe, and other parts of the world. Points of view from different cultures, as well as the possibility of lasting personal relationships, will be invaluable.

The special needs of various minority groups have been met on the Ohio University campus. The needs of women have been taken into account in both academic and extracurricular programs at Ohio University. The English, history, and political science departments offer courses geared to women's issues, taught by female and male faculty alike. Many programs and speakers of interest are offered each year.

Women's intercollegiate athletics is an expanding program and women are part of the marching band.

Another way in which the University has taken into consideration the needs of a minority group is in the establishment of the Lindley Student Center. Though developed to accommodate the unique interests and needs of black students, the center is not exclusively for blacks. One purpose in creating the center was to give white and international students an opportunity to experience what people in another cultural group enjoy.

A further step along these lines are the International Houses within the residence hall system which allow roughly equal numbers of international students and American students to live together in the same building, sharing each other's cultural heritage.

The Office of Lifelong Learning, through the External Student Program and College Program for the Incarcerated, reaches a number of students across the country and throughout the world, who are pursuing their Ohio University degrees via Independent Study. The external students are nontraditional students engaged in careers or other activities which prevent them from attending the University or one of the regional campuses. They are truly involved in the lifelong learning process. The college program offers programs to the incarcerated.





## STUDENT ACTIVITIES

University and student organizations regularly bring speakers and performing artists to campus. Among those who appeared here recently are the Annapolis Brass Quintet, Arthur Schlesinger, U.N. Ambassador Donald McHenry, Andrew Young, and Clarence Mitchell.

Popular performers have included Billy Joel, Eddie Money, Helen Reddy, and Jimmy Walker.

Approximately 200 student organizations exist on campus. Social fraternities and sororities, honorary, departmental, professional, recreational, volunteer, and special-interest groups are included. Many significant national honor societies have chapters on campus. These include Phi Beta Kappa and Phi Delta Kappa among others. Opportunities to do volunteer work in Athens and surrounding communities are offered by the Student Life Office.





### Intercollegiate Athletics

Ohio University belongs to the Mid-American Conference, which includes Miami University, Bowling Green, Toledo, Kent State, Ball State, Northern Illinois, Eastern Michigan, Central Michigan, and Western Michigan. Men's varsity sports include football, basketball, baseball, track, cross-country, swimming, wrestling, golf, tennis, and soccer. The OU Bobcats also compete against many out-of-conference teams around the country.

Women's Intercollegiate Athletics is also active with varsity teams in softball, basketball, field hockey, swimming, tennis, volleyball, track and field, lacrosse, and cross-country. It is a new and expanding program and invites the participation of all women, regardless of major.

Club sports at Ohio University include hockey, lacrosse, and rugby, and athletic facilities include gymnasiums, an indoor ice-skating rink, tennis courts, an indoor swimming pool, and areas for horseshoe pitching and softball. The West Green is the site of the athletic complex, and the multi-million dollar Convocation Center is the major sports arena as well as concert site in southeastern Ohio.

### Recreation

There are many recreational opportunities for men and women in the extensive intramural program. In addition, Baker Center (the University student center) provides facilities for bowling, billiards, and table tennis, as well as rooms for student meetings and campus-wide social and cultural events.

Several movies are shown on campus each week. Some are first-run films of a year or so ago, while others are foreign film classics and experimental movies. The showings are sponsored by campus organizations at reduced prices.



## RESIDENCE HALL LIFE

The residence hall areas are divided into four specific areas called "greens." The individual halls are reserved exclusively for a particular type of student (i.e., freshman, upperclass, graduate, etc.), recognizing the special needs of each. University services are provided in all of the halls through the professionally trained live-in staff and consultants from other segments of the University community.

Particular emphasis is placed on meeting the needs of the new freshman student through the Freshman Residential Program. This program is committed to providing those services, skills, and growth opportunities that are so necessary to successfully complete your college career through interaction between faculty, staff, and other students within our University community.

The special interests and talents of the individual student can be enhanced through participation in one or more of the many campus organizations. There is ample opportunity to participate in the government of your hall, green, or the campus. Many of these programs have been and continue to be designed by and for our student residents.

## INDIVIDUAL COUNSELING

Counseling at Ohio University is available to help students with definite career goals as well as those who are undecided.

First, admissions counselors can help determine if Ohio University is the appropriate place. Faculty advisors in all departments can help decide if a suitable field has been chosen. If a student does not have a precise career choice, University College counselors can be of assistance. University College offers a bachelor of general studies degree, which allows students to structure their own degree programs, taking a wider variety of courses than would be possible through a major.

Counseling and Psychological Services provides career counseling, occupational information, educational counseling, and personal adjustment problem assistance, on a confidential basis. Individual and/or group counseling and psychological therapy are available.

Counselors in the Career Planning and Placement Office can help evaluate the present job market possibilities in most academic majors. They conduct slide presentations and mini-seminars dealing with how to conduct a job search, how to conduct yourself during interviews, and how to prepare resumes. They also have a series of self-help guides and a guide to self-evaluation in the job market.

Students have access to an extensive library of career information which includes application forms for state, federal, and private employment, graduate school catalogs, and telephone directories of 80 percent of our national metropolitan areas.

Since many summer employers actively recruit on campus, the Career Planning and Placement Office is a source of summer jobs as well. In addition, they will aid in preparing letters of inquiry and resumes and will help in obtaining summer jobs.





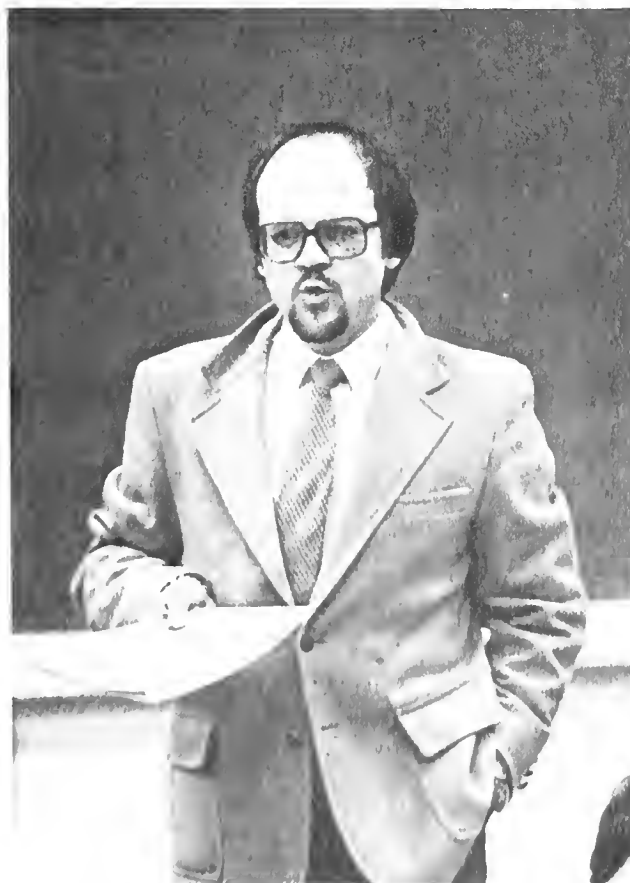
## ACADEMIC INFORMATION

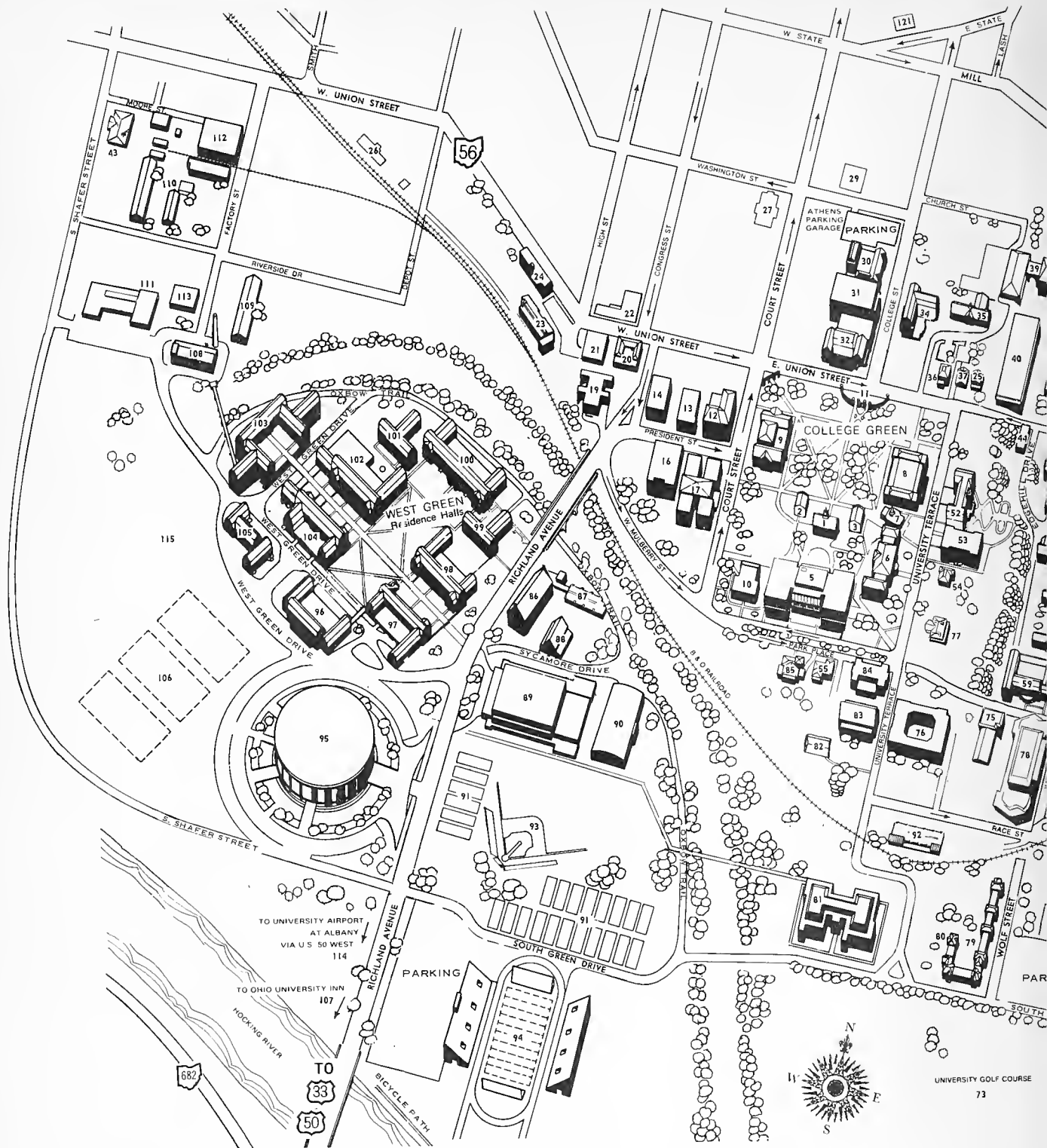
Students with definite areas of interest are admitted directly to the degree colleges of their choice and assigned to faculty advisors. If the student has decided on a college but not a major, he or she may still enter the college. Undecided students and those who wish to explore several academic areas may be admitted to University College. Except for a University-wide freshman English composition requirement, there are no freshman course requirements common to all students; those with tentative majors refer to the specific requirements outlined under colleges in this catalog

### Faculty

The possibilities of personal contact are enhanced by the low student-faculty ratio. Though first-quarter freshmen are likely to be in fairly large classes in survey and introductory courses, class size tends to diminish as one's class rank increases. Upperclassmen will have classes close to the ratio

Ohio University recognizes teaching as the faculty's primary responsibility





- 1 Cutler
- 2 McGuffey
- 3 Wilson (administrative)
- 5 Library, Alden
- 6 Ellis
- 7 Galbreath Chapel
- 8 Memorial Auditorium
- 9 Chubb
- 10 University College office
- 11 Carnegie
- 12 Class Gateway
- 12 Copeland
- 12 Business Administration, college office
- 13 Chemistry
- 14 Morton (old)
- 16 Bentley

- 17 Lindley
- 19 Engineering and Technology, college office
- 20 Haning
- 21 Lasher
- 22 College Inn
- 23 Heating Substation
- 24 Industrial Technology
- 25 56 E. Union Street
- 26 Railroad Station
- 27 Athens County Court House
- 28 Parking Garage, Athens City
- 29 Athens City Building
- 30 Kantner
- 31 Radio-Television Communication
- 31 Communication, college office
- 31 WOUB-TV studios

- 32 Baker Center
- 34 Voigt
- 35 Hudson
- 36 Trisolini Gallery
- 36 Fine Arts, college office
- 37 Jennings
- 39 Seigfried
- 40 Music
- 41 Putnam
- 42 McCracken
- 42 Education, college office
- 43 Credit Union
- 44 Edgehill Offices
- 45 Lincoln
- 46 Jefferson
- 47 Johnson
- 48 Read


- 49 Washington
- 50 Bush
- 51 Biddle
- 52 Bryan
- 53 Tupper
- 54 McKee
- 55 35 Park Place
- 57 Perkins
- 58 Gamertsfelder
- 59 Shively
- 60 Tiffin
- 61 Davis — Lakeview Apts.
- 62 Hayes — Lakeview Apts.
- 63 Lakeview Apts. #33
- 64 Lakeview Apts. #34
- 65 Lakeview Apts. #35
- 66 Lakeview Apts. #38

- 68 Pickering
- 69 Brown
- 70 Mackinnon
- 71 Crawford
- 72 Nelson
- 73 Golf Course
- 75 Botanical Research
- 76 Scott Quadrangle
- 76 Health and Human Services college office
- 77 Konneker Alumni Center
- 78 Morton (new)
- 79 Wolfe Apts.
- 80 Ullom Apts.
- 81 Clippinger
- 82 Edwards Accelerator
- 83 Natatorium

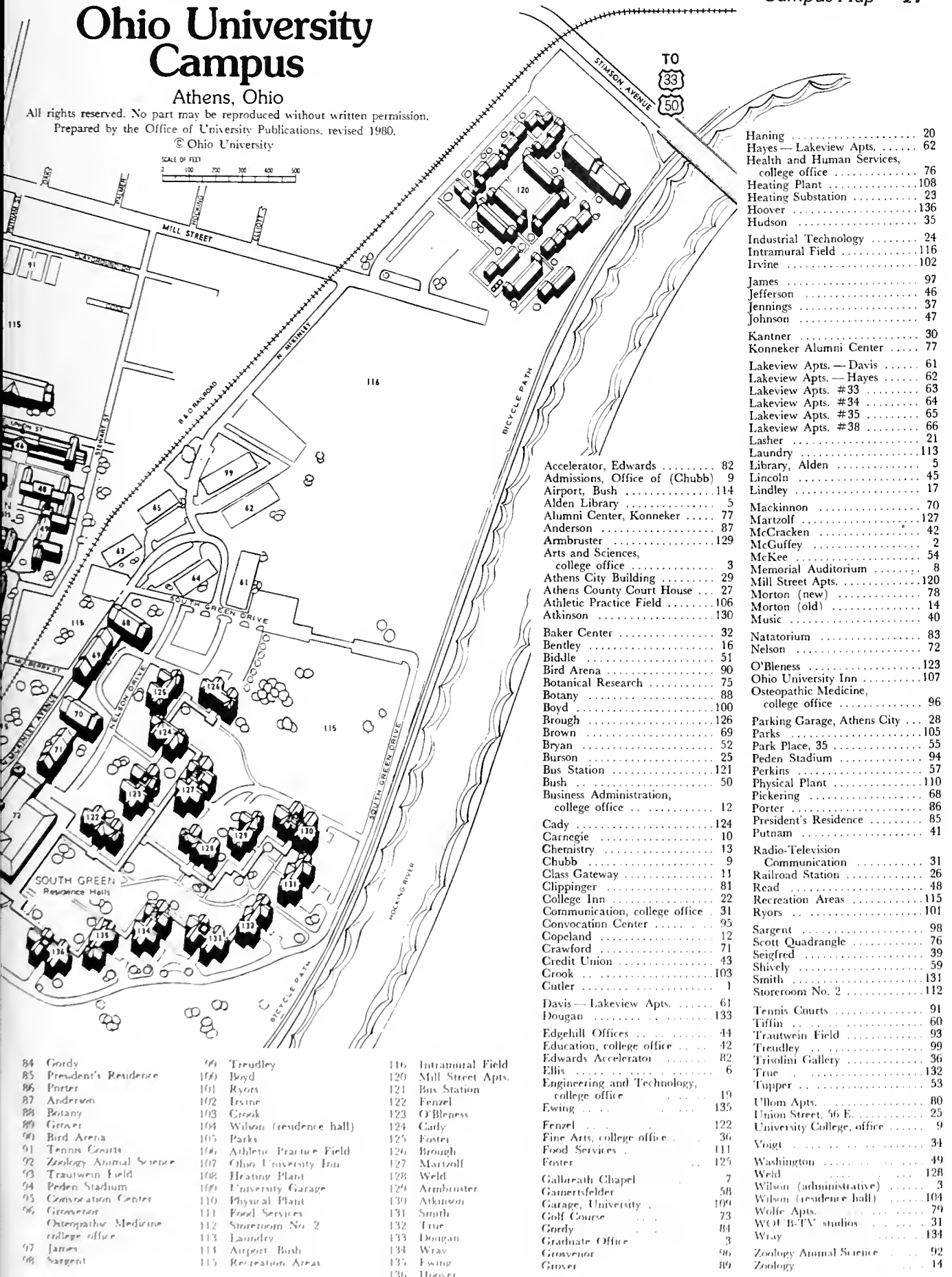


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SCALE OF FEET



0 100 200 300 400 500



## Library

The seven-story Alden Library houses over a million volumes including periodicals and government documents. Current issues of more than 5,000 periodicals and newspapers are available, plus nearly 600,000 microform units. The building will seat 3,200.

## Honor Societies

These national organizations confer membership in recognition of high scholastic attainment and the fulfillment of other constitutional requirements. Some of the societies recognize and encourage the development of a well-rounded personality and leadership and service qualities in addition to academic achievement.

Alpha Kappa Delta, *Sociology*  
 Alpha Lambda Delta, *Scholarship*  
 Alpha Pi Mu, *Industrial Engineering*  
 Angel Flight, *Aerospace Studies*  
 Arnold Air Society, *Aerospace Studies*  
 Beta Alpha Psi, *Accounting*  
 Beta Gamma Sigma, *Business Administration*  
 Blue Key, *Scholarship, Activities*  
 Delta Phi Alpha, *German*  
 Delta Sigma Pi, *Business Administration*  
 Delta Sigma Rho-Tau Kappa Alpha, *Forensics*  
 Epsilon Pi Tau, *Industrial Arts Education*  
 Eta Kappa Nu, *Electrical Engineering*  
 Kappa Delta Pi, *Education*  
 Kappa Kappa Psi, *Band*  
 Kappa Tau Alpha, *Journalism*  
 Mortar Board, *Scholarship, Activities*  
 Omicron Delta Epsilon, *Economics*  
 Omicron Delta Kappa, *Scholarship, Activities, Leadership*  
 Pershing Rifles, *Military Science*  
 Phi Alpha Theta, *History*  
 Phi Beta Kappa, *Scholarship*  
 Phi Delta Kappa, *Education*  
 Phi Eta Sigma, *Scholarship*  
 Phi Gamma Nu, *Business*  
 Phi Kappa Phi, *Scholarship*  
 Phi Mu Alpha, *Music*  
 Phi Sigma Iota, *Romance Languages*  
 Phi Upsilon Omicron, *Home Economics*  
 Pi Gamma Mu, *Political Science, Social Sciences*  
 Pi Kappa Lambda, *Music*  
 Pi Mu Epsilon, *Mathematics*  
 Sigma Alpha Iota, *Music*  
 Sigma Pi Sigma, *Physics*  
 Sigma Xi, *Science*  
 Society for Professional Journalists/  
 Sigma Delta Chi, *Journalism*  
 Tau Beta Pi, *Engineering*  
 Tau Beta Sigma, *Band*  
 Women in Communications, Inc., *Journalism*



## Guidelines and General Information



## ACADEMIC ORGANIZATION

### Center for Afro-American Studies

Established to develop individual perspectives of the black person's role in modern society and to train students to function in varied social service fields. Grants the bachelor of science in Afro-American studies degree.

### College of Arts and Sciences

Preprofessional curricula. Curricula leading to the bachelor of arts, bachelor of science, and bachelor of science in Afro-American studies degrees. Preparation for teaching at the secondary level.

#### Departments:

- Afro-American Studies
- Botany
- Chemistry
- Classical Languages
- Computer Science
- Economics
- English Language and Literature
- Geography
- Geology
- History
- Linguistics
- Mathematics
- Modern Languages
  - French
  - German
  - Italian
  - Portuguese
  - Russian
  - Spanish
- Ohio Program of Intensive English (OPIE)
- Philosophy
- Physics and Astronomy
- Political Science
- Psychology
- Social Work
  - Mental Health Technology
- Sociology and Anthropology
- Zoology and Microbiology

### College of Business Administration

Curricula leading to the bachelor of business administration degree.

#### Departments:

- Accounting and Quantitative Methods
- Administrative Sciences
- Management

### College of Communication

Curricula leading to bachelor of science in communication, and bachelor of science in journalism degrees.

#### Schools:

- Interpersonal Communication
- Journalism
- Radio-Television

#### Center for Communication Management

#### Institute of Visual Communication

Interdisciplinary program coadministered with the College of Fine Arts

### College of Education

Teacher-training curricula leading to the bachelor of science in education degree; supervision of student teaching and other field experience in education.

#### Schools:

- Applied Behavioral Science and
- Educational Leadership
- Curriculum and Instruction

### College of Engineering and Technology

Curricula leading to the bachelor of science in chemical engineering, bachelor of science in civil engineering, bachelor of science in electrical engineering, bachelor of science in industrial and systems engineering, bachelor of science in mechanical engineering, and bachelor of science in industrial technology degrees.

#### Departments:

- Chemical
- Civil
- Electrical
- Industrial and Systems
- Industrial Technology
  - Engineering Graphics
  - Industrial Arts (Teaching)
  - Industrial Technology
- Mechanical
- Aviation

## College of Fine Arts

Curricula leading to the bachelor of fine arts and bachelor of music degrees.

### Schools:

#### Art

- Art Education
- Art History
- Ceramics
- Graphic Design
- Painting
- Photography
- Printmaking
- Sculpture

#### Dance

- Dance

#### Music

- Applied Music
- Music Education
- Music History and Literature
- Music Therapy
- Theory and Composition

#### Theater

- Comprehensive Theater

Department of Comparative Arts

Department of Film

Institute of Visual Communication

Interdisciplinary program coadministered with the College of Communication

## Office of Graduate Student Services

Programs leading to the master of arts, master of business administration, master of education, master of fine arts, master of science, and doctor of philosophy degrees.

## College of Health and Human Services

Curricula leading to the bachelor of science in hearing and speech sciences; the bachelor of science in home economics; the bachelor of science in nursing degrees; and the bachelor of science in health, physical education, and recreation programs.

### Schools:

- Health, Physical Education, and Recreation
- Hearing and Speech Sciences
- Home Economics
- Nursing

## Honors Tutorial College

Attempts to provide the most flexible and challenging education possible both to the academically gifted and to the creative student through curricula leading to the bachelor's degree.

## Center for International Studies

Offers a certificate of African, Asian, or Latin American studies to undergraduates as a supplement to the major.

- African Studies
- Latin American Studies
- Southeast Asian Studies

## Office of Lifelong Learning

Provides educational opportunities beyond the regular channels of the University by utilizing the resources of the University in nontraditional ways.

- Continuing Education
- Independent Study
- Workshops, Conferences, and Institutes

## College of Osteopathic Medicine

Offers a four-year professional program leading to the degree of doctor of osteopathy.

## Regional Campuses

- Belmont County
- Chillicothe
- Lancaster
- Zanesville
- Ironton Branch
- Portsmouth Resident Credit Center

## University College

Basic college for exploratory students at the freshman level. Two-year terminal programs leading to the associate in arts, associate in applied science, associate in applied business, and individualized studies degrees. Four-year programs leading to the bachelor of general studies and bachelor of criminal justice degrees. Two- and four-year Reserve Officers Training Corps programs leading to commissions in the U.S. Air Force and the U.S. Army.

## ADMISSION AND FEES

A special publication for prospective students, a bulletin describing the University, its available programs, its admission procedures and regulations, and its history, can be obtained by writing to the Office of Admissions, Chubb Hall, Ohio University, Athens, Ohio 45701. Applications for admission to study at the undergraduate level may be obtained from the Office of Admissions.

Application materials and additional information about graduate study are available upon request to the Office of Graduate Student Services, Wilson Hall, Ohio University, Athens, Ohio 45701.

### When to Apply

A person may apply for admission to undergraduate study following the junior year in high school.

New students are admitted to the fall quarter, which opens the second week in September; the winter quarter, which opens the first week in January; the spring quarter, which opens the fourth week in March; or the summer session, with terms which open the third week of June and the fourth week of July.

June 15 is the freshman application deadline for the fall quarter. Applications for other terms are accepted up to one month before classes begin.

**Interviews.** A personal interview is not required for admission to Ohio University. However, prospective students and their parents are strongly encouraged to visit the campus and discuss plans with an admissions counselor. The Office of Admissions is open for appointments from 9 a.m. to 11:30 a.m. and from 1 p.m. to 4 p.m., Monday through Friday. On Saturdays, there is a group information session at 11 a.m. Tours of the campus are available Monday through Friday at 10 a.m., and 2 p.m. and Saturdays at noon. The Office of Admissions can also arrange at cost on-campus overnight accommodations and dining for prospective students, in addition to appointments with specific departments of the student's interest. Appointments with academic departments are available only Monday through Friday. Appointments may be made by writing or telephoning the Office of Admissions (614/594-5174).

The Office of Admissions sponsors a series of weekend programs for prospective students. Full details and reservation forms are available from the Office of Admissions.

### Application Procedures

The applicant's level of formal education and place of residence determine the procedures he or she follows in applying for admission to the University.

**Freshman Applicant.** A person who (a) has or soon will receive a secondary school diploma or a High School Equivalency Certificate and (b) has not been enrolled for 12 or more quarter hours of coursework at a college or university, applies as a freshman applicant.

A freshman may apply for admission in one of two ways: Admission by Exam, or the traditional application procedure.

Admission by Exam allows high school seniors to be considered for admission on the basis of American College Test (ACT) or Scholastic Aptitude Test (SAT) scores. When the ACT or SAT scores are sent to Ohio University, the student will be notified of eligibility for admission if the ACT composite score is 19 or higher, or the SAT combined score is 870 or higher. To confirm acceptance of the admission offer, the student submits an Admissions Verification Form and a nonrefundable application fee of \$25 for Athens-campus applicants and \$15 for regional-campus applicants. The traditional application form and high school transcript will not be required. If the test scores are below the indicated levels, the student is sent a traditional application form.

To apply for freshman admission through the traditional process, a student submits a completed application form, the nonrefundable \$25 application fee for Athens-campus applicants (\$15 for regional-campus applicants), ACT or SAT scores, and an official high school transcript (sent directly from the high school to the Office of Admissions). Note that ACT or SAT scores are not required of students who have been out of high school for one year or more.

Notification of admission status is on a rolling basis, beginning in early fall. Students can expect to hear from the Office of Admissions within three weeks after all credentials have been received. Following admission, the student receives a residence hall contract and agreement form. Students should submit the required \$100 residence hall deposit prior to May 1 to hold a place for the fall quarter. Students and parents will also receive an invitation and details about the orientation-registration program for entering students.

The Office of Admissions will waive the \$25 application fee for financially disadvantaged students, upon the written recommendation of the high school guidance counselor. It is expected that such students will qualify for significant amounts of need-based financial aid.

**Early Admissions.** The University does admit a limited number of students each year who have completed the junior year of high school. Such students are expected to display the necessary intellectual capacity and social maturity to be successful in college. The



student is urged to make arrangements to secure the high school diploma by the beginning of the sophomore year of college study or secure the High School Equivalency Certificate by taking the General Education Development Test. Students interested in early admissions should contact the Office of Admissions.

**Transfer Applicant.** A person who has been or is registered for 12 or more quarter hours of coursework at a post-secondary institution of education applies as a transfer applicant.

A transfer applicant files (1) an application form accompanied by a \$25 nonrefundable fee and (2) a transcript from each of the post-secondary institutions in which he or she has been registered. Transcripts must be forwarded by the institutions at the request of the applicant.

Space is available in University residence halls for transfer students and housing contracts will be mailed by the Housing Office shortly after admission has been granted.

A student who is applying for transfer to the College of Fine Arts is required to submit a portfolio or to audition. Students should make their own arrangements for this by contacting the appropriate school in the College of Fine Arts.

**Applicant From Another Country.** A citizen of another country applies to the director of admissions if interested in undergraduate study; to the Office of Graduate Student Services if interested in graduate study.

The applicant files (1) an admissions application; (2) complete official transcripts and pertinent certificates for all secondary and post-secondary work; (3) and such evidence as may be required by the University concerning the applicant's ability to meet the financial obligations of a student in the United States.

All international students and refugees are required to take an English placement test administered by the Ohio Program of Intensive English (OPIE) at the time of initial registration. Exemption or placement in an English as a Second Language (ESL) course will be determined by the results of this examination. If the scores indicate placement in an ESL course, registration for the ESL course is mandatory. Though the Test of English as a Foreign Language (TOEFL) is not required for admission, those applicants who have the TOEFL results should submit them.

Payment of the \$25 nonrefundable application fee should be made with the application.

An official translation must accompany transcripts and certificates which are not in English. *Do not submit documents for which there is only one copy; documents submitted in support of an application cannot be returned to the owner*

Once admission is granted, the student receives a residence hall contract and an I-20 form to be used in securing a student visa. The housing contract is to be completed and returned to the University prior to arrival on campus.

**Nondegree Student.** If an applicant wishes to carry a limited number of courses at the University but is not interested in earning a degree, he or she may apply for admission as a nondegree student.

Such person may be approved for registration upon completion of a nondegree student application. If a transcript of previous coursework or any credential is necessary, the Office of Admissions will notify the student.

The University currently charges a \$15 nonrefundable application fee for nondegree students. This fee is not charged to summer-only nondegree students.

**Reenrolling Applicant.** If a person has previously attended as an undergraduate student but is not currently enrolled at Ohio University as a full-time or part-time student on the Athens and/or regional campuses and wishes to return as an undergraduate student, he or she applies as a reenrolling applicant. Any student who has been dropped from the University or whose records have a hold on them must have this cleared through the appropriate office before reenrollment can be processed.

A reenrolling applicant files with the Office of Admissions (1) an application form for reenrollment and (2) a transcript from each post-secondary institution in which he or she has been registered since last enrolled at Ohio University.

Space is available in University residence halls for reenrolling students and contracts will be mailed by the Housing Office shortly after admission has been granted.

**Courses for High School Students.** Ohio University offers college courses for students still enrolled in high school. Under this program a high school student may enroll in University courses during the academic year concurrently with high school enrollment or during the summer sessions. To be admitted to this program, the high school student must have the approval of the high school principal or guidance counselor for any study during the regular academic year. Further information about the program may be obtained from the Office of Admissions.

**Deferred Admission.** Students once admitted may request that their admission to the University be transferred to any future term. Students, both freshman and transfer, are guaranteed a place for the future term and are free to pursue a period of work, service, or travel before formally coming to campus for study. During this period, students are assured that their future enrollment at the University is secure.

## Admission Requirements

A particular pattern of high school subjects is not required for admission to undergraduate study at Ohio University. However, the following distribution of subject matter prepares a student for the pursuit of any curriculum at the University: three years of English, two years of foreign language, two years of social science, two years of a laboratory science, one year of algebra, and one year of plane geometry.

**Freshman Applicant.** Every resident of Ohio who is a high school graduate or holds the High School Equivalency Certificate is eligible for admission to Ohio University.

Candidates for admission who are not residents of Ohio are encouraged to make application for admission. Out-of-state applicants can expect favorable action on their admission if they rank in the upper half of their graduating classes and if they present an ACT composite score of 19 or higher, or SAT scores that total 870 or higher.

Students should note that restricted and selective admissions procedures are in effect for the following under-



graduate programs: Athletic Training, Business Administration, Dance, Engineering, Honors Tutorial College, Music, and Radio-Television.

**Transfer Applicant.** A student wishing to transfer from a regionally accredited college or university is required to have a cumulative grade-point average of 2.0 (on a scale where A is 4, B is 3, C is 2, and so forth) on all work attempted. A student wishing to transfer from an institution which does not have regional accreditation may be required to have a grade-point average substantially above a 2.0. In addition to the average, students wishing to enter the College of Fine Arts must meet the audition or portfolio requirement. Students wishing to enter the School of Nursing have special requirements. See the School of Nursing under the *College of Health and Human Services* section of this catalog. Transfer students to the School of Radio-Television or the College of Business Administration must have completed 48 transferable quarter hours (32 semester hours) with an earned grade-point average of 2.5 to be eligible for admission.

**Transfer Credit Evaluation and Recording of Transfer Credit.** All credit earned at a regionally accredited college or university with a grade of C- or higher is accepted as transfer credit and can be used to satisfy degree requirements in the same manner as credit earned at Ohio University. All grades for transfer credit are converted to a T grade symbol on the student's permanent academic record. The number of transferable quarter hours of credit is recorded on the academic record, but no quality points are recorded. Transfer students, therefore, enter Ohio University with no grade-point average on the Ohio University academic records.

Normally, courses in which a D grade was earned are not acceptable for transfer. Such a course will transfer, however, if (1) it was a specific prerequisite (as stated in the previous school's catalog) for a later course in the same department, and (2) a grade of C- or better was earned in that later course. Students meriting credit under this stipulation must contact the Office of Admissions, Chubb Hall, to receive credit for this coursework.

A student who has attended an institution which does not have regional accreditation may be required to have a grade-point average substantially above a 2.0 average and may have only part or in some cases none of his or her previously earned credit accepted. Any credit earned at such an institution is only accepted provisionally, to be validated by the student's performance at Ohio University.

The Office of Admissions will send a tentative transfer credit evaluation report shortly after the student has been granted admission to the University.

**Evaluation of Technical College Credits.** A student who has completed an associate degree from a regents-approved Ohio college will have accepted for transfer credit all the general education coursework for which the degree was awarded if completed with a grade of C- or better. These credits will be accepted by all colleges of Ohio University toward meeting the minimum total credits required for a baccalaureate degree. The applicability of these transferred credits toward meeting the requirements of the program the prospective student wishes to enter can be determined in advance on request to the Office of Admissions. Requests should specify in which program the student is interested, and should be accompanied by a transcript of record.

In addition to policy described above, Ohio University has worked out certain credit evaluations with Ohio community and technical colleges which allow the technical college graduate to earn a bachelor's degree in approximately two years provided he or she continues in the corresponding academic area at the University. For a detailed description of these programs, contact the Office of Admissions.

**Armed Forces Credit.** Some courses provided by the Armed Forces are the equivalent of college courses and transfer credit may be obtained by presenting certificates or a diploma describing the training received. A Guide published by the American Council on Education is used to determine what credit might be granted. Blanket credit is not granted for military service.

**Advanced Placement and Proficiency Examination Credit.** Any entering student who has taken an examination provided by the Advanced Placement (AP) program of the College Entrance Examination Board may, by achieving an appropriate score (generally three or higher), receive Ohio University credit and placement.

Ohio University also participates in the College Level Examination Program (CLEP) sponsored by the College Entrance Examination Board. Subject to approval by the appropriate department in each case, the University will allow credit for satisfactory performance on the CLEP subject-matter examinations, provided that the examinations are taken prior to formal enrollment at Ohio University. The University does not award any credit for scores achieved on the CLEP General Examinations.

Detailed information about both the AP and CLEP programs is available from high school guidance offices; from Ohio University; or by writing the College Entrance Examination Board, Box 592, Princeton, New Jersey 08540.

## Entrance Medical Requirements

Entering students are not required to submit pre-enrollment physical examinations. Required of each new student is a tuberculosis skin test administered by the University Health Service at the time of initial registration to the University. All positive reactors must receive chest x-rays by the Health Service annually while at the University.

A major medical insurance plan, designed to supplement the care provided by the University's Health Center, is mandatory for each full-time student, unless he or she submits evidence of comparable coverage under a private plan.

## Ohio Residency

It is the responsibility of the student to report a change of address and/or residency from an Ohio resident to a non-Ohio resident at the Office of Student Records. If the student's residency has changed to an Ohio resident, he or she must file a residency petition with the Office of Admissions. No change of residency can be made until the residency petition has been approved by the University examiner. Questions concerning residency should be directed to the University examiner in the Office of Admissions.

The residency rules described below were adopted by the Ohio Board of Regents on December 29, 1977, pursuant to Chapter 119. of the Revised Code, and

under the authority conferred upon the Ohio Board of Regents by Section 3333.31 of the Revised Code. These rules are subject to change without notice by the Ohio Board of Regents or the Ohio General Assembly.

#### A. Intent and Authority

1. It is the intent of the Ohio Board of Regents in promulgating this rule to exclude from treatment as residents, as that term is applied here, those persons who are present in the State of Ohio primarily for the purpose of receiving the benefit of a state-supported education while insuring that the same benefit is conferred on all bona fide domiciliaries of this state whose permanent residence and legal citizenship is in Ohio, and whose actual source of financial support is subject to Ohio taxation.
2. This rule is adopted pursuant to Chapter 119. of the Revised Code, and under the authority conferred upon the Ohio Board of Regents by Section 3333.31 of the Revised Code.

#### B. For Purposes of This Rule:

1. A "resident of Ohio for all other legal purposes" shall mean any person who maintains a twelve-month place or places of residence in Ohio, who is qualified as a resident to vote in Ohio and receive state welfare benefits, and who may be subjected to tax liability under Section 5747.02 of the revised code; provided such person has not, within the time prescribed by this rule, declared himself or herself to be or allowed himself or herself to remain a resident of any other state or nation for any of these or other purposes.
2. "Financial support" as used in this rule, shall not include grants, scholarships and awards from persons or entities which are not related to the recipient.
3. An "institution of higher education" as used in this rule shall mean any university, community college, technical institute or college, general and technical college, medical college or private medical or dental college which receives a direct subsidy from the State of Ohio.

#### C. General Residency for Subsidy and Tuition Surcharge Purposes

The following persons shall be classified as residents of the State of Ohio for subsidy and tuition surcharge purposes:

1. Dependent students, at least one of whose parents or legal guardian has been a resident of the State of Ohio for all other legal purposes for twelve consecutive months or more immediately preceding the enrollment of such student in an institution of higher education
2. Persons who have resided in Ohio for all other legal purposes for at least twelve consecutive months immediately preceding their enrollment in an institution of higher education and who are not receiving, and have not directly or indirectly received in the preceding twelve consecutive months, financial support from persons or entities who are not residents of Ohio for all other legal purposes
3. Persons who are living and are gainfully em-

ployed on a full-time or part-time and self-sustaining basis in Ohio and who are pursuing a part-time program of instruction at an institution of higher education.

#### D. Specific Exceptions and Circumstances

1. A person on active duty status in the United States military service who is stationed and resides in Ohio and his or her dependents shall be considered residents of Ohio for these purposes.
2. A person who enters and currently remains upon active duty status in the United States military service while a resident of Ohio for all other legal purposes and his or her dependents shall be considered residents of Ohio for these purposes as long as Ohio remains the state of such person's domicile.
3. Any alien holding an immigration visa or classified as a political refugee shall be considered a resident of the State of Ohio for state subsidy and tuition surcharge purposes in the same manner as any other student.
4. No person holding a student or other temporary visa shall be eligible for Ohio residency for these purposes.
5. A dependent person classified as a resident of Ohio for these purposes shall continue to be considered a resident during continuous full-time enrollment and until his or her completion of any one academic degree program.
6. In determining residency of a dependent student, removal of the student's parents or legal guardian from Ohio shall not, during a period of twelve months following such removal, constitute relinquishment of Ohio residency status otherwise established under paragraph (C) (1) of this rule.
7. Any person once classified as a non-resident, upon the completion of twelve consecutive months of residency in Ohio for all other legal purposes, must apply to the institution he or she attends for reclassification as a resident of Ohio for these purposes if such person in fact wants to be reclassified as a resident. Should such person present clear and convincing proof that no part of his or her financial support is or in the preceding twelve consecutive months has been provided directly or indirectly by persons or entities who are not residents of Ohio for all other legal purposes, such person shall be reclassified as a resident. Evidentiary determinations under this rule shall be made by the institution which may require, among other things, the submission of information regarding the sources of a student's actual financial support to that end.
8. Any reclassification of a person who was once classified as a non-resident for these purposes shall have prospective application only from the date of such reclassification.
9. A person who is transferred by his or her employer beyond the territorial limits of the fifty states of the United States and the District of Columbia while a resident of Ohio for all other legal purposes and his or her dependents shall be considered residents of Ohio for these purposes as long as Ohio remains the state of such person's domicile

10. A person who has been employed as a migrant worker in the State of Ohio and his or her dependents shall be considered a resident for these purposes provided such person has worked in Ohio at least four months during each of the three years preceding the proposed enrollment.

#### E. Procedures

Institutions of higher education charged with reporting student enrollment to the Ohio Board of Regents for state subsidy purposes and assessing the tuition surcharge shall provide individual students with a fair and adequate opportunity to present proof of their Ohio residency for purposes of this rule. Such institution may require the submission of affidavits and other documentary evidence which it may deem necessary to a full and complete determination under this rule.

### Precollege Orientation and Registration

Ohio University conducts a precollege orientation and registration programs for new fall quarter students during the summer months.

Fall quarter freshmen and transfer students are expected to visit the campus during July or August for a two-day session of orientation, academic advisement, and course registration. Parents are encouraged to attend these sessions where they will have an opportunity to discuss many of the concerns they may have about the college experience.

Orientation and registration programs for new students entering the University other than fall quarter will be conducted immediately prior to the beginning of each quarter. Precollege dates are July 27 through August 21, 1981, and July 26 through August 20, 1982.

Detailed information concerning student orientation and registration is sent to all admitted students from the University College Office.

### Registration Fees

Undergraduate registration fees are payable at the Cashier's Office\* prior to the opening of classes and in accordance with instructions issued with registration materials. Checks and money orders should be made payable to Ohio University in the exact amount of the fees. It is important that the student retain all fee receipts.

Payment of fees owed is a prerequisite to official enrollment, and all students should have sufficient funds to cover these expenses. Post-dated checks will not be accepted. Checks issued to the University and not paid on presentation to the bank will automatically cancel any receipts given and result in the assessment of penalties.

Ohio University reserves the right to make, without prior notice, any fee adjustments that may become necessary.

\*Regional campus students pay fees at the campus where they are registered. For graduate fees see the Graduate Bulletin.

### Refund of Fees

The official University policy on the refund of registration fees is: (1) Official withdrawal from the University prior to the first day of classes entitles the student to a refund of 100 percent. (2) Withdrawal from the University during the first 14 days of the quarter (see the academic calendar) entitles the student to a refund of 80

percent (cost of 20 percent) if fees were paid in full. Students on the Monthly Payment Plan will have incurred a charge of 20 percent of registration fees with this being subtracted from their registration payments to determine refundable amount. (3) Withdrawal from the University after the first 14 days of classes entitles the student to no refund. (4) Any student withdrawing from the University while owing the University money is considered to be indebted to the University for that amount.

Students dropping hours by change order prior to or during the first 14 days of the quarter, when such changes result in a reduction of fees, are entitled to receive a 100 percent refund of the reduction. Changes made after the 14th day of the quarter will result in no refund.

Refunds are issued 30 days after the date of withdrawal from the University.

Questions about the above items should be referred to the Office of Registration.

### Late Registration and Late Payment Policy

Unless in the judgment of the registrar a student's registration has been delayed due to the convenience of the University, a \$20 *late registration fee* will be assessed each late-registering student beginning with the 15th calendar day of each quarter.

A *late payment fee* would normally not be applicable since payment is a prerequisite to registration. However, in addition to other service charges a \$20 *late payment fee* will be assessed by the Bursar's Office on all checks returned by a bank after the payment deadline has passed.

### Monthly Payment Plan

A monthly payment plan is available to full-time students (undergraduate over ten hours; graduate over eight hours) on the Athens campus who pay the entire amount for either their registration fee, including the nonresident surcharge if applicable, and/or residence hall fees (room only, board only, or both). The plan, which equalizes the quarter's fees into three payments the first of which is due approximately two months before the opening of the quarter, may be chosen for one or all of the fees. Students electing the monthly payment plan will pay an additional administrative charge which is \$9 per year for each area chosen. The \$9 equates to \$3 per quarter.

Students who receive assistance from the Student Financial Aids and Scholarships Office or the Office of Graduate Student Services are not included in the monthly payment plan area for which they are specifically receiving assistance. For example, students receiving scholarships are not eligible for the registration (tuition) plan. However, they are eligible for the residence hall plan. In addition, the residence hall plans are available only to those students who have signed housing contracts.

The refund procedure logic is on the basis that all fees for the quarter have been paid. The refundable amount will be adjusted to recognize any unpaid monthly payments for the current quarter.

Contact the Cashier's Office, Chubb Hall, to obtain an application for the monthly payment plan.

## SCHEDULE OF UNDERGRADUATE FEES\*

### Instructional Fees (per quarter)

	Resident of Ohio	Nonresident
Comprehensive fee for load of 11 to 20 hours inclusive		
Athens campus .....	\$494.00	\$1,061.00
Regional campuses .....	410.00	977.00
Ironton Branch and Portsmouth Resident Credit Center .....	370.00	400.00
Includes the instruction fee — the general fee, and other special services (such as health, library, and testing) and course and laboratory fees. Excludes fees for instruction as in music and bowling, which are listed in the quarterly class schedule.		
Extra fee for each quarter hour in excess of 20 hours		
Athens campus .....	\$ 24.00	\$ 53.00
Regional campuses .....	19.00	46.00
Ironton Branch and Portsmouth Resident Credit Center .....	19.00	19.00
Fee for each hour for load of 1 to 10 hours, inclusive		
Athens campus .....	\$ 49.00	\$105.00
Regional campuses .....	39.00	91.00
Ironton Branch and Portsmouth Resident Credit Center .....	34.00	37.00
Auditors pay fees in full as above.		

### Portfolio Development Classes:

off campus .....	\$ 39.00	\$ 91.00
on campus .....	49.00	105.00

### Lifelong Learning — Independent Study

Independent Study courses, each quarter hour .....	\$ 23.00
Independent Study projects, each quarter hour .....	28.00
Course Credit by Examination, each quarter hour .....	13.00
External Student status .....	50.00
External Student program for the incarcerated, comprehensive fee, per quarter .....	417.00
Adult Learning service per assessment .....	50.00
Administration fee .....	35.00

### Miscellaneous Fees

Admission application filing fee (nonreturnable) .....	\$25.00
Special student application fee (nonreturnable) .....	15.00
Reclassification fee from special student to regular student status .....	10.00
Change of class schedule .....	4.00
Duplicate official forms, fee receipts, grade report, etc. ....	2.00
Course Credit by Examination, each quarter hour .....	13.00

\*Subject to change at the discretion of the University

Graduate application for degree	
Associate .....	\$ 7.50
Bachelor's .....	15.00
Master's .....	20.00
Doctoral .....	50.00
Reapplication .....	5.00
Health insurance, annual premium .....	44.00
Late registration and/or payment .....	20.00
Returned check service charge (accumulative) .....	5.00
Transcript of record .....	2.00
Placement registration fee .....	12.00

## REGISTRATION AND PROCEDURES

### REGISTRATION

Details concerning the registration procedure are printed each quarter in the Schedule of Classes and may be obtained at the Office of Registration in advance of each registration.

In accordance with regulations a student currently in attendance at the University may preregister for a subsequent quarter.

New and former undergraduate students will receive registration information by mail with other orientation material.

### Student Load

All regular full-time students, including those on probation, will usually carry a normal load of 16-20 quarter hours.

Students who schedule fewer than 11 credit hours (12 for financial aid recipients) will be considered part-time for the effective quarter.

### Auditing and Visiting Privilege

Courses to be audited must be marked "audit" on registration forms. Questions about auditing should be referred to the student's college office. Changes from audit to credit or from credit to audit are made by change order during the period when changes are permitted.

With the permission of the instructor, a full-time student has the privilege of visiting classes in which he or she is not registered.

### Classification of Students

A student who has been admitted to the University and who expects to pursue a degree course is given rank according to the number of quarter hours earned: freshman, 0-44; sophomore, 45-89; junior, 90-134; and senior 135 and over.

### Graduate Study as a Senior

A student who is within nine hours of completing all requirements for the bachelor's degree at Ohio University may take courses carrying graduate credit, provided the requirements for admission are otherwise met and the written recommendation of the dean of the college, the graduate chairman of the major department, and the

approval of the director of graduate admissions are secured. This privilege also may be extended to a well-qualified senior of another university who has nine or fewer hours to complete for the bachelor's degree. Request for this privilege should be made in advance of registration through the Office of Graduate Student Services.

## CHANGE PROCEDURES

### Change of Class Schedule

A student who finds it necessary to add a course, withdraw from a course, or correct his or her registration secures a change order in the office of the dean of the college in which he or she is enrolled. A fee of \$4 is charged for each change order processed after the 14th day of classes.

A course may be added only during the first 14 calendar days of the quarter. The student must consult with the designated departmental representative or instructor for each course being added. The departmental representative or the instructor approves the adding of a course by initialing the change order. After securing the approval the student presents the change order form for the dean's approval. For information concerning fee changes, see the regulations under *Fees* in this catalog.

Students may drop any course through the fifth week (defined for the purpose of this policy as the 35th calendar day) of a term. The completed change order must be turned in by the student to the appropriate academic dean's office by the end of the fifth week. After the end of the fifth week and before the last class day of the quarter, a student may petition his or her dean in writing requesting to drop under special circumstances. Earning a low grade in the course is not to be considered such a circumstance. A student who drops a course during the first two weeks (first 14 calendar days) will have no record of that course appear on the transcript.

For any student who withdraws from a course after the 14th day of the quarter the instructor will assign a grade of WP or WF, indicating that the student was performing work considered passing (WP) or failing (WF) at the time of withdrawal. This grade will be awarded at the end of the quarter, at which time the names of all withdrawn students will appear on the grade sheet.

Students dropping hours by change order prior to or during the first 14 days of the quarter, when such changes result in a reduction of fees, are entitled to receive a 100 percent refund of the reduction. Changes made after the 14th day of the quarter will result in no refund.

A student denied permission to withdraw from a course may appeal the decision through the appropriate grievance procedure (See the Student Handbook).

### Change of Student Personal Information

All changes of student personal data must be reported to the Office of Registration, Chubb Hall. Forms are available in the Office of Registration or the office of the student's dean. Changes of name, social security number, and/or birth date must have a document verifying the correct information at the time the request is made.

Forms for reporting a change of home or Athens address are available in the Office of Registration. *The student is responsible for any University office communication sent to him or her at the last address reported to the Office of Registration, Chubb Hall.*

## Change of College

Application for transfer from one degree college to another is made in the office of the dean of the college in which the student is enrolled. The change must be signed by the two deans concerned and be presented to the Office of Registration, Chubb Hall, within the first 14 days of each quarter or the student remains enrolled in the initial college. A student must fulfill degree requirements for the college to which he or she transfers. The student's degree requirements are defined by the catalog in effect at the time of transfer.

## WITHDRAWAL FROM THE UNIVERSITY

Application for withdrawal is made on a withdrawal form obtained in the office of the dean of the college in which the student is enrolled. When the request for the withdrawal has been approved by the dean of the college, the withdrawal is referred to the Office of Registration, Chubb Hall, which grants an official withdrawal after it has been determined that all obligations to the University have been met. A refund of registration fees is made according to regulations under the section *Refund of Fees*.

However, if a student is receiving financial assistance the change in enrollment status may result in the student's having to repay those programs from which he or she received student financial assistance.

## TRANSCRIPTS

A copy of a student's record is issued by the Office of Student Records, Chubb Hall, as an official transcript. Transcripts are made only upon request. Each copy of the transcript costs \$2. The transcript carries a statement of good standing except when a student has been dropped from the University because of poor scholarship, nonpayment of fees, or unsatisfactory conduct. A student on scholastic probation has such status shown on the transcript.

## REPLACEMENT DIPLOMA

A notarized affidavit, attesting that the original diploma has been lost or destroyed, or a copy of a court order verifying a legal name change (other than change of marital status), must be filed with the Office of Student Records at Ohio University. In case of a legal name change the original diploma must be returned.

Each affidavit requesting a replacement diploma must be accompanied by a \$10 fee.

The replacement diploma will carry current titles and signatures of University officers. It will be the same size and quality as the diploma being issued currently at the time of request. It will carry the notation "official replacement."

## CREDIT AND GRADING

### Credit and Final Examinations

All credit is designated in quarter hours. Normally, a quarter hour is the equivalent of one recitation or two or more laboratory periods a week throughout a quarter.

The final examinations are held during the last week of a session and all students are required to take the examinations according to the schedule issued by the Scheduling Office, i.e., if a final examination is required for that course.

The final examination for honors work must be taken before the opening of the regular examination period. For information concerning honors work, refer to Departmental Honors Program.

### Grading System and Reports

At the close of a session or upon the completion of a course an instructor reports a letter grade indicating the quality of a student's work in the course. Once grades are submitted they are final and cannot be changed unless evidence of error can be presented. *Grades cannot be changed by arranging to do additional work.* Points are assigned for each quarter hour of credit earned, according to the following grading system:

A	4.00	C	2.00
A-	3.67	C-	1.67
B+	3.33	D+	1.33
B	3.00	D	1.00
B-	2.67	D-	0.67
C+	2.33	F	0.00

**CR** . . . In addition to the letter grades a report of credit may be made. This is credit without a grade. Credit is added to the hours earned, but not added to the hours attempted for point-hour calculation. Credit is to be used for certain courses and only by prior approval of the Curriculum Council or in certain special cases by the dean of the college.

**PR** . . . Progress. The PR is awarded only in graduate courses and undergraduate courses specifically designated by the department with the approval of the college dean. It indicates the student has made progress in the course in which he or she is registered but has not finished the work required for releasing a letter grade. May extend longer than one quarter. Not calculated in the grade-point average.

**I** . . . The student has not finished the work required to receive a grade. It is not counted in the grade-point average. Unless it is changed within the first six weeks of the next quarter enrolled, the I converts to F (an extension of time may be requested to run to the end of the quarter).

When the student applies for graduation any incomplete grades on his or her record will be calculated as F grades for purposes of determining eligibility for graduation. If the I is not completed within six weeks after graduation, the grade will convert permanently to F.

**WP/WF** . . . Designation for a course dropped after the 14th day of the quarter.

The above four grades do not count in the grade-point average

Other reports which will appear on the student's grade slip but which are not assigned by a faculty member:

**AU** . . . Audit. A student registering for Audit is expected to attend classes consistent with the instructor's attendance policy. Failure to do so will result in removal of the audit from the student's record. If this action results in a change of fees, the official University policy on refund of registration fees will be applied

**I\*** . . . Administrative Incomplete. Given to a student who initially registers for a course but does not officially drop that course by change order. The I\* is given by the Office of Student Records and may be removed in accordance with rules established by the student's college. The I\* may be the result of a faculty member assigning a grade for which the course is not coded as legitimate. Until removed, an administrative incomplete will be computed as an F in the calculation of the grade-point average.

**NR** . . . No Report. The instructor left the grade blank on the grade report. Grades were turned in too late to be processed.

**P** . . . Conversion of grades A through D- under the pass/fail option. The fail (F) grade counts in the grade-point average the same as any F grade.

A form properly submitted by the student through his or her college office for a course for which graduation credit is not allowed will appear on the transcript with double asterisks (\*\*) on the same line as the course and an explanation at the bottom of the transcript stating:

\*\*Not counted toward graduation. Hrs. & Pts. not included in totals for scholastic average.

A form properly submitted by the student through his or her college office for a repeated course will appear on the transcript in the same manner. Only the final hours attempted and/or earned and points for this course will appear in the transcript totals.

### Repeating a Course

When a course is repeated, both grades continue to be used to determine the cumulative point-hour ratio until the student applies for and completes a repeated-course form, available in the office of the dean. A course may not be repeated for the purpose of raising the grade-point average after completion of higher-level coursework in the same subject area. Note also that courses taken at Ohio University and repeated at another school do not result in deduction of the first grade earned.

### Pass/Fail Option

The pass/fail option is designed to encourage students to explore areas of study which they might otherwise hesitate to enter.

To be eligible for the pass/fail option, a student must have earned an average of 2.5 or better for his or her latest quarter of full-time enrollment, or have an accumulative average of 2.0 or better. First-quarter freshmen will be considered as having met the above requirement.

The pass/fail option is subject to the following restrictions: (1) Students may complete up to 20 quarter hours under this option; (2) A student may take only one course per quarter by pass/fail; and (3) No course taken pass/fail may be used to fulfill any graduation requirement (college, school, or departmental) other than the total hours requirement. For example, courses taken pass/fail cannot be used to satisfy distribution requirements, 90-hour requirements of courses above a specified level, a specific course established as a requirement for majors in a departmental major program, and all other such requirements. (Note: Restriction (3) does not apply to pass/fail courses taken prior to September, 1976.)

### Point-Hour Ratio (Grade-Point Average)

The basis for determining scholastic standing is the point-hour ratio or grade-point average (g.p.a.). It is obtained by dividing the total number of points earned by the total number of quarter hours of credit attempted.

### Transfer Credit Evaluation and Recording of Transfer Credit

For details of credit evaluation for all prospective students, see the *Admissions* section of this catalog.

### Evaluation of Technical College Credits

For details of credit evaluation for all prospective students, see the *Admissions* section of this catalog.

### Continuing Education Unit

Participants in designated noncredit courses may be awarded continuing education units (CEUs). The CEU is a measurement (one unit per ten class contact hours) nationally recognized by business, industry, and professional organizations for an individual's efforts toward professional growth. Permanent records of CEUs earned are kept in the Office of Lifelong Learning, which, upon request, will provide a copy of an individual's record.

### Deans' List

The Deans' List, compiled at the close of each quarter, includes the names of all students who have point-hour ratios of at least 3.3 on a minimum of 16 quarter hours of credit earned, including 12 hours attempted for letter grades.

### Probation and Drop Regulations

Each student's record is reviewed at the close of each quarter. If a student's cumulative record shows a grade-point deficiency, he or she is subject to being placed on probation or dropped from the University. The point-hour ratio is obtained by dividing the total number of grade points earned by the total hours attempted. The entire record, including each grade in each course attempted, is used to determine the student's probation status.

The extent to which a student's record is below a point-hour ratio of 2.0 (C) determines whether he or she will be dropped, placed on probation, or continued on probation. The deficiency points are determined by multiplying the total number of hours attempted by two and subtracting from this all points earned. For example, if a student has attempted 40 hours and has earned 65 points the deficiency is  $15:40 \times 2.0$  (the point-hour ratio required for graduation) equals 80; 80 minus 65 points earned equals 15.

### Probation

A student who has enrolled in fewer than 45 hours is placed on probation when the grade-point deficiency is greater than 12 grade points. The student who has enrolled in 45 or more hours is placed on probation if he or she has less than a 2.0 average (one or more deficiency points).

### Probation Removal

Probation is removed if a student on probation who

has enrolled in fewer than 45 hours reduces the grade-point deficiency to 12 or fewer grade points. For the student who has enrolled in 45 or more hours probation is removed when the point deficiency is reduced to zero.

### Continuance on Probation

A student who has been on probation for one quarter may be continued on probation for one additional quarter if the grade-point deficiency has not increased and he or she is not eligible to be removed from probation. However, at the close of this additional quarter the student must be eligible to be removed from probation or he or she will be dropped from the University.

### Dropped From The University

Any student whose grade-point deficiency at the close of any quarter exceeds the number of hours attempted in that quarter will be dropped from the University. In other words, if a student receives a g.p.a. of less than 1.0 in any one quarter, he or she will be dropped. A student may be dropped even though he or she has not previously been on probation. A student on probation is dropped from the University if the point-grade deficiency has increased and he or she is not eligible to be removed from probation.

Normally, a petition for reinstatement will not be considered until 12 months after the student was dropped. The student presents the petition to the dean of his or her college. Only extraordinary circumstances will prompt the committee to consider a petition for second reinstatement, and then not until 24 months after the student was dropped.

A student who is dropped from the University may not enroll for courses on the Athens campus, on a regional campus, or in correspondence or lifelong learning courses conducted by Ohio University until reinstated. Work taken at other institutions while on drop status at Ohio University will not be accepted by Ohio University without prior approval of the dean of the student's college.

### Plagiarism

Plagiarism can take many forms, but in essence it involves the presentation of some other person's work as if it were the work of the presenter. This kind of deception has no place in the academic world.

Plagiarism, a form of academic misconduct, will not be tolerated within the Ohio University community. Whenever plagiarism takes place, as determined by the judgment of a faculty member, or by the procedures of the Office of University Judiciaries, serious action will be taken against the student committing plagiarism. Such action may be failure of work undertaken; failure of the course; censure by the faculty member, department, or college involved; and/or formal action by the Office of University Judiciaries, which can include suspension or dismissal from the University.

Whenever formal action is taken with respect to plagiarism, the student(s) involved, the faculty member, the department chairman, and the student's dean should be notified of the action.

It is appropriate for each faculty member to point out each quarter, among the several introductory items of business related to the course, the nature of plagiarism and the range of punishments pertaining to such an offense.



When a student is accused and judged guilty of plagiarism, and wishes to appeal the judgment, he or she may follow the usual appeal route through chairman and dean. If satisfaction is not achieved through this process, the appeal may be taken to the Student Complaint Board.

### **Class Attendance Policy**

Each instructor will state his or her policy during the first week of classes each quarter.

### **Instructor's Attendance Reports**

A student who misses the first two class meetings of a course for which he or she is registered, may be denied permission to remain in the class. The student who has missed the first two class meetings should verify his or her status in the class with the instructor. The instructor has the option of dropping or retaining the student. Students not retained because of missing the first two days must process a change order to adjust their schedules. Failure to process the change order can result in an "F" or "I" grade.

Instructors are encouraged to report to the office of the dean of the appropriate college the names of students who are frequently absent. This enables the staff to investigate such cases and to determine what assistance these students may need in dealing with problems outside the classroom.

### **Notification of Causes of Absence**

Under certain conditions a notification of absence enabling a student to make up work missed may be obtained from the appropriate office as indicated below. The following rules apply.

A. When a student has participated in an authorized University activity, such as a departmental trip, music or debate activity, ROTC function, or athletic trip, the notification should be issued by the sponsoring office.

B A student absent from class due to hospitalization as an inpatient in O'Bleness Memorial Hospital is NOT issued a notification of class absence. However, the student may request that the instructors call the Health Center for verification of the fact of the student's hospitalization on certain days.

C A student who receives medical or dental care as an outpatient at the Hudson Health Center will not be issued a notification of class absence. However, the student may request the instructors to call the Health Center (the attending physician, if possible) for verification of receipt of outpatient care on a given day. It is assumed that students visiting the Health Center as outpatients will do so whenever possible, without missing classes.

D A student who receives medical care from health care personnel or facilities other than the University Medical Services is expected to present the instructors of classes necessarily missed for this reason with verification of the date(s) such care was received from the attending physician or dentist.

## **GRADUATION REQUIREMENTS**

### **Application**

A student who is a candidate for graduation must make application in the Office of Student Records and pay the

application fee no later than the deadline listed in the academic calendar of the quarter in which graduation is planned. This application initiates the process which informs the student's college to check fulfillment of degree requirements. The process culminates with the reflection of the college, major, degree, and the date of granting degree on the student's permanent (academic) record. The application fee for a bachelor's degree is \$15 and for an associate degree, \$7.50.

If an applicant fails to meet the requirements for graduation, he or she may reapply for the quarter in which completion of the requirements is planned. The fee for re-application is \$5.

Students entering fall quarter 1977 or thereafter for a bachelor's degree must have a minimum of 192 quarter hours of credit with all college requirements met. The associate degree requires a minimum of 96 quarter hours.

### **Scholastic Average**

To meet the minimum standards for graduation from Ohio University, a student must have a point-hour ratio of 2.0 (C) on all hours attempted. The need for this 2.0 average applies to the student's total record and to the total major or equivalent as determined within the college.

### **Major Areas of Study**

Requirements for majors and fields of concentration are outlined by the individual colleges. A transfer student who has completed most or all of the courses in a major area of study at another institution may be required to satisfy the departments concerned that Ohio University academic standards in that area have been met.

### **Minor Areas of Study**

While most programs do not require the completion of minor areas of concentration, a variety of minors is offered by several departments. In many cases, these minors may be completed even when the student is not enrolled in the college which offers that minor. Requirements for the available minors are explained in the *Colleges and Curricula* section which follows.

### **Developmental Course Credit**

No more than eight credit hours earned in developmental courses may be applied toward the total hours required for graduation. Developmental courses shall be so designated and publicized by the curricular committees of the appropriate academic units.

### **Residence Requirements for Graduation**

#### **Bachelor's Degree**

Residence credit is defined as credit earned by regular enrollment at Ohio University on the Athens campus, on any of the regional campuses, by any of the approved programs abroad, by any approved student teaching, by Independent Study and Course Credit by Examination arranged through Ohio University's Independent Study Program, by degree credit earned through continuing education, or by any combination of these methods.

The minimum requirement for students who complete fewer than 96 quarter hours at Ohio University is the final

year (three quarters) with 48 hours of credit. For a student who completes 96 or more quarter hours of Ohio University credit, the final quarter shall be in residence as defined by the residence credit in the preceding paragraph.

If a student begins graduate study before completion of all requirements for a bachelor's degree, residence for the bachelor's degree will be reduced by as many weeks as credit hours of graduate work completed. The number of weeks subtracted will be credited toward the residence requirement for a master's degree if the credit is acceptable in the program approved for graduate work toward a degree. Residence used for meeting requirements for one or more bachelor's degrees may not also be used for meeting the residence requirements for a master's degree.

The residence regulations apply to a student who has been approved for graduation *in absentia* and is completing the last year in an accredited institution, except that the regulations apply to residence before the student leaves the University.

A student should make certain particular residence requirements of his or her college have also been met.

### Associate Degree

A student seeking an associate degree must earn at least 30 quarter hours of residence credit at Ohio University. Moreover, students who complete fewer than 60 quarter hours of Ohio University credit must earn at least eight of the final 15 hours in residence as defined below. If the degree applicant has not earned Ohio University credit within two years of the quarter in which application is made, he or she must earn Ohio University credit during the quarter in which the associate degree is earned.

Residence credit is defined as credit earned by regular enrollment at any Ohio University campus, by any of the approved programs abroad, by any approved student teaching, by Independent Study through Correspondence or Course Credit by Examination arranged through Ohio University's Office of Lifelong Learning, by degree credit earned through continuing education, or by any combination of these.

Problems related to the residence requirements should be discussed with the student's academic dean. In certain cases exceptions to the residence requirements may be made.

### In Absentia

*In absentia* permission is obtained in writing from the dean of the college in which the student is enrolled. To obtain the bachelor's degree a student who has been approved for the senior-in-absentia privilege in an approved professional school must have completed a full year's work in the professional school of the quality prescribed for the bachelor's degree at Ohio University, and be eligible for advancement without condition to the second year. The official transcript from the school must be submitted to the Office of Admissions, Chubb Hall, Ohio University, before the degree-conferring date.

The *in absentia* privilege does not apply to graduate degree programs.

### Time Limit

The time limit for fulfilling the published requirements for a degree is five years from the date of first registration in the University. Requirements instituted subsequent to

the student's initial registration are applicable at the discretion of the University. The following additional regulations apply:

1. A student fulfills the requirements in effect at the time he or she first registered in the University.
2. If major or equivalent is changed the student fulfills the major requirements in effect at the time he or she makes the change.

A transfer student is governed by the same regulations, except that the number of years in which to complete the degree requirements is reduced by the number of years of transferred work.

### Graduation with Honors

A candidate for the bachelor's degree who is graduated with a point-hour ratio of 3.0 up to 3.50 on all hours attempted is distinguished on the commencement program by the notation "with honor," with 3.50 or above, by the notation "with high honor."

A candidate who has successfully completed a program of study with honors is distinguished in the commencement program and on the diploma with the appropriate notation.

### Granting of Degrees and Commencement

Degrees are granted at the close of each quarter. The annual commencement is held at the close of the spring quarter. Candidates for spring quarter graduation and recipients of degrees at the preceding summer, fall, and winter quarters are invited to attend the exercises.

### A Second Bachelor's Degree

A student who desires two bachelor's degrees may meet the requirements for them either simultaneously or successively:

(a) If a student desires to complete the requirements for the two degrees conferred on the same date, he or she must meet the particular subject requirements for both degrees; earn a minimum of 48 approved quarter hours beyond the minimum required for one degree with the requisite scholastic average, both on Ohio University work and credit that has been transferred from another school, and must have completed a total of 13 quarters of college work or its equivalent, with a minimum of five quarters of residence, or the equivalent, at Ohio University. When the two degrees are offered by different colleges, the student must register in both colleges and meet the college residency requirement the quarter in which the degrees are to be conferred.

(b) If a student has met the requirements for two degrees as indicated above and desires to have the degrees conferred in successive quarters, he or she may do so without further credit or residence. For example, one degree may be conferred at the end of one quarter and application made for the second degree in a subsequent quarter.

(c) If a student desires to take a second bachelor's degree after receiving the first, he or she must complete the subject requirements for the second bachelor's degree, earn a minimum of 48 acceptable quarter hours beyond the requirements for the first degree with the requisite scholastic average, and meet the residency requirement in the college offering the second degree. (See individual college requirements.)

## Course Credit by Examination

Course Credit by Examination is designed for students who wish to demonstrate proficiency in a particular Ohio University course. A student may take up to six months after enrolling for credit by examination to prepare for the examination. An information sheet describing the nature of the examination is used by the student as a guide in preparing for it. Regular Ohio University credit is granted for a grade of D- or better with the pass/fail option available in accordance with the University regulations for this option. A grade of F is recorded and in order for a student to retake a course failed in this program, special permission must be obtained. The grade received is used in computing the point-hour ratio of Ohio University students, but enrollment in course credit by examination does not affect the quarterly course load.

Ohio University students must obtain permission from their academic deans to enroll in the program. Others are not required to have permission, but if they plan to transfer the credit to another institution they should ascertain in advance if it will be accepted.

Registration and arrangements for the examinations are made in the Office of Independent Study, Tupper Hall 302. The fee is \$7.50 per quarter hour. Complete information and a listing of the courses regularly available can be obtained at this office.

## General Education Requirement\*

An educated person needs certain intellectual skills in order to participate effectively in society. These include: (a) the ability to communicate effectively through the written word and the ability to use quantitative or symbolic reasoning; (b) broad knowledge of the major fields of learning; and (c) a capacity for evaluation and synthesis. To meet these objectives, Ohio University has instituted a three-tier general education requirement to be met prior to graduation by all students according to the following schedule.\*

Tier I: Quantitative Skills and English Composition.

Tier II: Breadth of Knowledge.

Tier III: Synthesis.

### Tier I: Quantitative Skills

All students entering Ohio University as freshmen in September, 1980, and in subsequent years must demonstrate an acceptable level of quantitative skills. Exams administered by Ohio University will determine whether a student must take a basic quantitative skills course (MATH 101) prior to enrollment in one of the following Tier I courses:

CS 201	MATH 120, 121 (elementary education majors only)
ET 180	PHIL 120
MATH 113, 117, 118, 151	PSY 121

These courses are marked in the Courses of Instruction section of this catalog by the designation (1M) following the title and credit hours.

If a student is able to demonstrate by examination exceptional quantitative skills, he or she may be exempted from the Tier I requirement. This level of exceptional skill is assumed to be equivalent to passing a course at the level of MATH 163A or higher.

### Tier I: English Composition

All students entering Ohio University as freshmen in

September, 1979 and in subsequent years must demonstrate an acceptable level of writing skill.

Exams administered by Ohio University will determine whether a student must take a basic writing skills course (ENG 150) prior to enrollment in either ENG 171, 172, or 173S. These courses are marked in the Courses of Instruction section of this catalog by the designation (1E) following the title and credit hours.

An advanced composition course is also required. Students unable to demonstrate advanced writing proficiency at the junior level must take, prior to graduation, an approved advanced writing course such as:

CA 360J	HIST 301J or 376J
ENG 305J or 308J	IT 370J
FILM 344J	JOUR 441J
GEOG 475J	MGT 325J
	MUS 320J

These courses are marked in the Courses of Instruction section of this catalog by the designation (1J) following the title and credit hours.

The requirements faced by transfer students are determined by point of entry and the number and type of credit hours transferred.

## Tier II: Breadth of Knowledge

Students entering Ohio University in September, 1981, and in subsequent years are required prior to graduation to complete a total of 30 credit hours from an approved list of courses in the following areas:

- Applied Science and Technology (A)
- Humanities and Fine Arts (H)
- Natural Sciences and Mathematics (N)
- Social Science (S)
- Third World Cultures (T)

Students are required to take at least four credit hours in four of the five distribution areas.

Courses chosen to satisfy Tier II requirements should form a coherent focus governed by each student's goals and interests. This focus should be established in consultation with a faculty advisor prior to scheduling Tier II courses. To assist in designing such a focus, a list of possible clusters of courses, intended as examples, will be available from advisors.

The student may select, in consultation with the advisor, courses from among the following departments as listed by their catalog numbers, to fulfill the Tier II breadth of knowledge focus. Please consult the Courses of Instruction section of this bulletin for descriptions of courses currently approved. Approved courses are marked by the designation (2A), (2H), (2N), (2S), or (2T) following the title and credit hours.

### Applied Sciences and Technology

Curriculum & Instruction 201  
 Electrical Engineering 150  
 Engineering & Technology: 100, 320, 325, 326, 331, 334, 337, 350, 360, 470  
 Geography 201, 260  
 Geology: 201, 270, 291E, 291I  
 Hearing and Speech 108, 209  
 Home Economics 128  
 Industrial and Systems Engineering 422  
 Industrial Technology 101  
 Microbiology 211, 212  
 Zoology 103

### Humanities and Fine Arts

Afro-American studies: 109, 110, 111, 115, 116, 119, 356  
 Archaeology: 201, 203  
 Art: 100, 101, 102, 105, 115, 128, 131, 141, 151, 191  
 Comparative arts: 117, 118, 317, 318  
 Dance: 120A, 120B, 120C, 170, 220A, 220B, 220C, 320A, 320B, 320C, 370, 420A, 420B, 420C, 471, 472, 473  
 English: 200, 201, 202, 203, 204, 205, 206, 210, 270, 271, 301, 301A, 302, 302A, 303, 303A, 304, 312, 313, 314, 315, 316, 317A, 317B, 317C, 321, 322, 331, 345, 360, 361, 362  
 Film: 201, 202, 203, 340, 341  
 Foreign languages and literatures: *Classical Languages*: 127, 234, 235, 236, 237. *Greek*: 111, 112, 113, 211, 212, 213. *Latin*: 111, 112, 113, 211, 212, 213, 351, 352, 353. *Modern Languages*: *French*: 111, 112, 113, 211, 212, 213, 341, 342, 343, 348, 349, 355, 356. *German*: 111, 112, 113, 211, 212, 213, 341, 342, 343, 348, 349, 355, 356. *Italian*: 111, 112, 113, 211, 212, 213, 341, 342, 343, 348, 349. *Portuguese*: 111, 112, 113, 211, 212, 213. *Russian*: 111, 112, 113, 211, 212, 213, 341, 342, 343, 348, 349, 355, 356. *Spanish*: 111, 112, 113, 211, 212, 213, 341, 342, 343, 348, 349, 354, 355, 356  
 History: 111, 121, 122, 123, 314A, 314B, 314C, 314D, 314E, 314F, 328, 329A, 329B, 329C, 330, 351, 352, 353A, 353B, 354, 356A, 356B, 356C, 357, 370, 389  
 Home economics: 405A  
 Humanities: 107, 108, 109, 307, 308, 309  
 Music: 100, 101A, 102A, 103A, 120, 121, 122, 141A, 142A, 143A, 147A, 148A, 149A, 241A, 242A, 243A, 244C, 245, 246, 249, 250, 251, 252, 253, 254A, 254B, 254C, 254D, 254E, 255, 256, 257, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358  
 Philosophy: 101, 130, 160, 216, 230, 232, 240, 250, 260, 301, 310, 311, 312, 314, 320, 330, 333, 350, 361, 362, 373  
 Theater: 110, 130, 131, 132, 170, 171, 270, 271, 272, 350, 470, 471, 472, 473, 474, 475, 476, 477A, 477B, 477C

### Natural Science and Mathematics

Astronomy/physical science: 100, 100B 100D  
 Botany: 101, 102, 103, 110, 111, 247  
 Chemistry: 121, 122, 123, 141, 142, 143  
 Geography: 101  
 Geology: 101, 102, 211, 291A, 291B, 291C, 291D, 291F, 291G, 291K  
 Mathematics: 163A, 163B, 211, 250A, 250B, 263A, 263B, 263C  
 Physical science: 101/101L, 105/105L, 121/121L, 122/122L, 123/123L (regional campuses only)  
 Physics: 201, 202, 203, 251, 252, 253  
 Zoology: 101, 150, 151, 373

### Social Sciences

Afro-American studies: 201, 221, 251, 252, 323, 350, 360, 402  
 Anthropology: 202  
 Business law: 255  
 Economics: 101, 102, 301, 302  
 Education: Applied behavioral science and educational leadership: 201, 410, 440. Curriculum and instruction: 200, 271  
 Geography: 121, 130, 230  
 Health, physical education, and recreation: 202  
 History: 101, 102, 103, 211, 212, 213, 265A, 300A, 300B, 300C, 302, 303, 304, 308A, 308B, 308C, 310A, 310B, 310C, 312, 313, 314, 315A, 315B, 316A, 316B, 316C, 317A, 317B, 318, 320, 321A, 321B, 333, 358A, 358B, 358C, 360, 362A, 362B, 364A, 364B, 365, 366A, 366B, 368A, 368B, 372A, 372B, 372C, 374A, 374B, 374C, 376, 379, 382A, 382B, 283C, 390A, 390B, 391A, 391B, 392A, 392B, 392C, 394A, 394B, 395  
 Home economics: 160, 360  
 Interpersonal communication: 105, 107, 205, 206, 234, 245

Journalism: 105  
 Linguistics: 270, 280, 350, 380, 390  
 Management: 200  
 Political science: 101, 102, 103, 230, 250, 306, 320, 323, 351, 372, 373, 374  
 Psychology: 101, 131, 173, 275, 332  
 Radio-television: 105, 170  
 Social Work: 101, 290  
 Sociology: 101, 201, 210, 211, 220, 223, 230, 231, 290, 302, 309, 315

### Third World Cultures

Afro-American studies: 113, 211, 253, 355, 357, 358  
 Anthropology: 270  
 Art History: 330, 331, 332, 333  
 Dance: 351, 352, 353  
 Education: 425A, 425B, 425C  
 English: 306A, 306B, 306C  
 Foreign languages and literatures: *Chinese*: 111, 112, 113. *Hausa*: 111, 112, 113. *Indonesian*: 111, 112, 113. *Swahili*: 111, 112, 113. *Southeast Asian Literatures in Translation*: 340, 345  
 Geography: 345, 351, 355, 356  
 History: 322, 323A, 323B, 325, 326A, 326B, 326C, 334, 335A, 335B, 336A, 336B, 338, 338A, 341A, 341B, 341C, 342, 343, 344B, 344C, 344D, 345A, 345B, 345C, 346A, 346B, 348A, 348B, 350  
 International studies: 103, 113, 121  
 Linguistics: 395  
 Philosophy: 370, 371, 372  
 Political science: 331, 333, 335, 435, 436, 447A, 447B, 479

Courses that fulfill a Tier I requirement cannot be applied toward Tier II. A student may apply one approved Tier II course in his or her major department toward the partial fulfillment of the Tier II requirement. (In the case of bachelor of general studies students, one approved Tier II course in the area of concentration may fulfill a Tier II requirement.)

### Tier III: Synthesis

Courses which meet the synthesis objective of general education are still being designed. The Tier III requirement is therefore not yet implementable.

\*Honors Tutorial College students and students enrolled in two-year associate degree technical programs are exempted from meeting general education requirements

## SERVICES FOR STUDENTS

### Academic Advancement Center (formerly Student Development Center)

The Academic Advancement Center helps beginning students develop basic skills and attitudes necessary to successfully master college-level work. Individualized instruction is available upon request in reading, writing, and study skills. Credit-bearing courses in reading and study skills are also offered to freshmen. See the "Courses of Instruction" section for course content descriptions. The center additionally provides tutoring help sessions in many freshman-level courses. Students may attend help sessions as frequently as desired to ask questions, to clarify points of confusion.

Project CAP, or the College Adjustment Program, is a special program for selected freshman entering Ohio University. Sponsored by the Academic Advancement Center, its purpose is to help new students adjust to college and to improve their chances to succeed. Project CAP is a comprehensive program of basic skills instruc-

tion, supportive counseling, and tutoring. Students are selected and invited to participate in Project CAP based on high school records and aptitude test results.

For further information about Project CAP or other Academic Advancement Center programs, contact the center on the first floor of Alden Library or call 594-6058.

### **Affirmative Action**

It is the policy of Ohio University that there shall be no discrimination against any individual in educational or employment opportunities because of race, color, religion, national origin, sex, veteran status, or handicap. Also, there shall be no discrimination because of age except in compliance with requirements of retirement plans or state and federal laws and guidelines. Furthermore, the University maintains a vigorous affirmative action program in order to promote equal employment opportunities and to ensure nondiscrimination in all educational programs and activities.

Information regarding University programs and policies, as well as related state and federal provisions, are available through the Office of Affirmative Action, 103 McGuffey Hall.

### **Career Planning and Placement**

The Office of Career Planning and Placement, located in Lindley Hall on South Court Street, is designed to assist all students and alumni who seek career or graduate school information.

The Office of Career Planning and Placement assists students in obtaining information regarding the types of careers possible with various subject concentrations, the preparation required for given careers, and the relative opportunities for individuals in various fields for the years ahead.

Traditionally, students have not established contact with career planning and placement offices until their senior year. Since it is now more important than ever to give careful thought and consideration to the planning of one's career, students are encouraged to consult the Office of Career Planning and Placement, the chairpersons of academic departments, or one of the academic deans during their first year of matriculation. Some of the critical functions of the Office of Career Planning and Placement include assisting the student in assessing capabilities, interests, and skills; exploring opportunities associated with acquired knowledge; preparation for the interview and job search process (i.e., resume preparation, interviewing skills).

The Office of Career Planning and Placement serves as a liaison between university graduates and potential employers. Representatives from these areas are invited to the campus for the purpose of sharing information and interviewing prospective employees. **ONLY EQUAL OPPORTUNITY EMPLOYERS ARE PERMITTED TO RECRUIT ON CAMPUS.** Upon request and the payment of a nominal fee, a credential file is also maintained for each student. This includes the student's academic record and all personal references, all of which are made available to prospective employers with the consent of the student.

### **Counseling and Psychological Services**

Counseling and Psychological Services provides confidential professional individual or group counseling and/or psychological therapy to undergraduate and

graduate students with educational, career, and a wide variety of stress-related problems.

Students having educational difficulties such as not performing up to their potential may receive help in clarifying and resolving their concerns.

Students who are uncertain about their educational and career objectives can obtain help in appraising their abilities, interests, performances, and personal characteristics so that they may identify more appropriate and satisfying directions.

Students with personal problems of any kind (emotional, social, marital, substance abuse, etc.) may receive assistance in better understanding and resolving their problems.

Information about a wide variety of occupations is available without an appointment.

Workshops on a variety of topics, designed to enhance the educational, social, and personal growth of students, are offered each quarter.

A student wishing an appointment about educational, career, or personal concerns should contact the receptionist on the third floor of Hudson Health Center (use the side entrance next to Voigt Hall) between 8 a.m. and 5 p.m., Monday through Friday. Phone: 594-6081.

### **Housing Office**

The main function of the University Housing Office is to assist students in acquiring housing on the Ohio University campus.

The Housing Office is responsible for all residence hall and room assignments for students residing in University-owned residence halls and the office initiates all room and board charges.

The Housing Office also supervises the assignment and maintenance of the married student apartment complexes.

### **Housing Regulations**

All freshman and sophomore students with fewer than 90 earned credit hours must reside in University-owned housing and participate in the associated mandatory board plan, subject to the exemptions listed below. Status will be determined on the basis of quarter hour credits earned at the conclusion of the immediately preceding spring quarter for continuing students. A student who is close to achieving 90 hours of credit at the conclusion of the spring quarter may petition to delay satisfaction of the required hours until the end of the summer session. Students requesting this extension who fail to earn a certified 90 hours at the conclusion of the summer session will be required to comply with the housing regulation. For transfer and reenrolling students the number of hours earned will be subject to certification by the director of admissions. For relocating students the number of hours earned will be subject to certification by the director of registration. Failure of a student, subject to the parietal rule, to comply with this condition of registration is cause for denial or cancellation of registration.

The exemptions are: (Must be requested in writing)

1. Students with fewer than 90 earned credit hours enrolled for not more than eight quarter hour credits during the fall, winter, or spring quarters and for fewer than three hours during a summer session.
2. Married students with fewer than 90 earned credit hours residing with their spouses within commuting distance of the University.

3. Students with fewer than 90 earned credit hours residing with parents or guardians whose permanent residence is within commuting distance of the University.
4. Students with 45 or more earned credit hours living in recognized fraternity or sorority houses.
5. Student veterans with fewer than 90 earned credit hours who have 18 months or more of active military service.

**NOTE:** All students with 90 or more hours of credit earned are permitted to reside in housing which coincides with their individual needs. It should be noted that the University bears no responsibility for the living conditions or problems arising therein to either the homeowner or the student resident.

**Special Students.** All special students must comply with the above regulations.

### Insurance, Major Medical

A major medical insurance plan designed to supplement the care provided by the University Medical Services is mandatory for every student registered for more than six hours of credit unless the student submits evidence of coverage by comparable private insurance.

The plan provides protection against major medical and surgical expenses regardless of where the student may be. In addition to the medical and surgical benefits payable under the terms of the group plan contract, an accidental death payment is part of the insurance policy.

To assist married students, a major medical-surgical expense protection insurance plan for dependents is available through the University comprehensive group medical insurance.

### Intercollegiate Athletics

#### Men's Intercollegiate Athletics

Ohio University is a charter member of the Mid-American Conference which is composed of ten prominent universities of the Midwest. The other members are Miami, Toledo, Western Michigan, Kent, Bowling Green, Central Michigan, Eastern Michigan, Northern Illinois, and Ball State.

In the administration, financing, organization, and management of the intercollegiate athletic program, the University adheres to the policies of the National Collegiate Athletic Association and the Mid-American Conference. All students are encouraged and welcomed to try out for any team of their choice. Ohio University teams go into competition thoroughly coached and trained. This training under excellent leadership makes it a privilege and an honor to participate on athletic teams at the University.

Medical attention for athletic squads is under the direction of a team physician. He has at his disposal the personnel and facilities of a modern university hospital and is aided by a qualified and experienced training staff.

The University's teams for men are organized in the following sports: football, basketball, baseball, track, wrestling, cross country, golf, soccer, tennis, and swimming. Any student interested in the athletic grant-in-aid program or any student wishing to try out for a team should contact the head coach of the sport(s) directly.

#### Women's Intercollegiate Athletics

The Ohio University women's intercollegiate athletic program is a charter member of the Association for Intercollegiate Athletics for Women. Ohio University is also a member of the Ohio and Midwest Associations for Intercollegiate Athletics for Women, which sponsor regional and national qualifying tournaments respectively. Additionally, they are members of the Mid-American Conference and compete for the conference title in all sports except lacrosse.

Medical attention for athletic squads is under the direction of a team physician. He has at his disposal the personnel and facilities of a modern university hospital and is aided by a qualified and experienced training staff.

The University's teams for women are organized in the following sports: field hockey, volleyball, swimming and diving, basketball, lacrosse, softball, tennis, track and cross country. Any student interested in the athletic grant-in-aid program or any student wishing to try out for a team should contact the head coach of the sport(s) directly.

### International Students

**Admission.** Information concerning the admission of undergraduate foreign students may be obtained from the Director of Admissions, Chubb Hall. Graduate students should contact the Office of Graduate Student Services, Wilson Hall.

**Financial Aid.** There is a very limited amount of financial aid available for undergraduate foreign students. In no case does this cover more than a portion of tuition or other expenses. Students entering from overseas are eligible to apply for awards based on academic promise; students already enrolled at Ohio University may apply for the same awards, and in addition may request special aid in cases of demonstrated need. Students may apply for these scholarships and grants-in-aid by contacting the International Student Services Office.

**International Houses.** Two centrally located residence halls offer special programs for roughly equal numbers of foreign and American students. The emphasis is on cultural interaction and mutual understanding. A large meeting room, lounges, and a dining facility are available. Students with interest in international affairs are encouraged to select rooms in these halls. Staff, both foreign and American, are selected because of their interest and training in foreign affairs.

**Associations.** The International Student Association is the major organization of foreign students at Ohio University. It represents over a dozen national, religious, and cultural groups and, with their cooperation, funds and presents a number of special events throughout the year. International Week is one of these.

Athens Friends of International Students runs a hospitality program and an International Wives' Club and, on a modest scale, matches foreign students with American families in Athens, Ohio, and the vicinity. These visits are short, and may be only for a dinner or an afternoon excursion, but sometimes long friendships develop from this brief opportunity to gain insights into American home life.

The International Wives' Club brings together the wives of foreign students on campus and interested wives of



faculty and community people. It serves as a forum for ideas and information which they find useful to share, and offers a productive and easy way in which to participate in University life.

**Ohio Program in Intensive English.** The OPIE administers English proficiency examinations to all new foreign students and provides intensive language instruction for those needing it. See descriptions of courses and program elsewhere in this catalog.

**Services.** The International Student and Faculty Services Office is available for consultation on all matters of interest to foreign students, including immigration, financial, and personal problems. All new students from abroad must report to the advisor's office upon arrival. An orientation program will be conducted for a few days prior to the opening of each quarter in order to introduce new students to the campus.

### **Intramural and Club Sports and Recreation Activities**

The Ohio University Intramural Sports Department offers a wide range of activities (approximately 33 different sports) for men and women, involving individual, dual, and team competition. A coed program for dual and team competition is also offered in a majority of activities. A limited recreational program is available when time and facilities permit. Some of the major intramural activities offered are football, basketball, broomball, volleyball, innertube water polo, softball, tennis, golf, and raquetball.

The Ohio University Club Sports Department serves as the administrative unit for all recognized sports clubs on campus. Any group of students, faculty, and staff who wish to organize for the purposes of practicing and competing, or individuals interested in a particular club, should contact the department. Currently there are 22 recognized clubs.

For further information contact the Department of Intramural and Club Sports in Grover Center.

### **Libraries**

The main library facility on the Athens campus is in the Vernon Roger Alden Library. The seven-story, air-conditioned modern library building has a shelving capacity of 1.4 million volumes and seating accommodation for 3,200 readers. Alden Library is open seven days a week for a total of 106 hours.

**Collections.** In March, 1979, the collections of the libraries passed the one-million volume mark, including periodical sets and government documents but excluding over 700,000 microform units. More than 6,000 current journals and newspapers are being subscribed. Besides the main collection which is arranged by the Library of Congress Classification System, there are separate subject and special collections: the Archives and Special Collections, Children's Collection, Government Documents, the Health Sciences Library, Maps Collection, Microforms and Non-prints Collection, and Southeast Asia Collection. In separate buildings are the Music/Dance Library, Slide Library, and a number of departmental collections in several scientific disciplines. Each of the regional campuses also has a well established library facility.

As one of 100 members of the Center for Research Libraries, Alden Library offers students and faculty access to an additional three million volumes of research materials and over 30,000 scientific and technical journals.

**Services.** To make the library's collections more accessible to its user, general tours, instructional lecture tours, and a video orientation presentation are offered to classes and groups upon request. Subject bibliographers' services are available to give assistance with problems in specific academic disciplines.

On-line information retrieval systems, including MEDLINE and CIRS (Computerized Information Retrieval Service) are available. Through the OCLC nation-wide shared cataloging and interlibrary loan network library collections across the country are now easily accessible. The library is a part of the age of resource sharing to better serve the academic community.

**Learning Resources Center.** The Learning Resources Center, also housed in the main library, provides audio/visual facilities and services to the entire faculty.

**Academic Advancement Center.** The Academic Advancement Center is located on the first floor of the library. See description of services elsewhere in this section.

### **Medical Services**

The Unified Health Services facilities are located in the Hudson Health Center. They include Medical Services, Health Education Services, Counseling and Psychological Services, and Environmental Health and Safety Services. Medical Services include an outpatient clinic and complete ancillary services, including x-ray, clinical laboratory, physical therapy, pharmacy, and a dental clinic.

The Medical Services staff includes full-time physicians; a dentist; a pharmacist; a coordinator of health education services; registered nurses; and registered laboratory, x-ray and other allied personnel.

A continuous health record is maintained on each student, beginning with the report of medical history obtained at the time of the student's first visit to the Hudson Health Center for evaluation and/or treatment of any medical condition. A tuberculosis skin test administered by the University Medical Services is required at the time of the student's arrival on the campus.

### **Motor Vehicles**

University policy and regulations state that no student shall drive, operate, park, or otherwise use a motor vehicle on the land and property of the University without first registering said motor vehicle with the director of security. This regulation includes student-owned vehicles; vehicles belonging to parents or relatives (including wives or husbands); and vehicles belonging to friends, rental agencies, and dealers.

Upon registration the student will be given a decal which must be attached to the vehicle as described in the brochure issued with the decal.

Failure to register a motor vehicle as provided by the regulations will result in a fine and/or disciplinary action.

While two- and three-wheeled motor vehicles are not permitted in the residence hall areas of the University, they are permitted on certain designated streets on the campus. They may be parked only in areas specifically

designated as motorcycle parking.

Parking Areas 15, 18, 19, 20, 22, 25, 26, and 27 are open for parking of registered student vehicles from 3 p.m. till 3 a.m. Monday through Friday, 6 a.m. to 3 a.m. Saturday, and 6 a.m. to 3 a.m. Sunday.

### Ombudsman of the University

The ombudsman's primary responsibility is to assist students and other members of the University community in expediting settlement of complaints and grievances. Using broad investigatory powers and direct access to all University officials of instruction and administration, the ombudsman may intervene in the bureaucratic process on behalf of individuals when that process unnecessarily or unfairly impinges upon them.

Those with problems should first try to discuss their concerns with the person most closely associated with the situation. Should such discussion seem difficult, or should it fail to bring acceptable results, the ombudsman may prove an invaluable aid. The ombudsman's office is in McGuffey Hall.

### Residence Life

The Residence Life Program is responsible for advising and coordinating 6,700 graduate and undergraduate students in 39 residence halls located on the East, South, and West greens. The primary focus of the Department of Residence Life is to support the educational mission of the University via personal and interpersonal developmental programming involving academic, cultural, social, and recreational growth experiences. The residence halls are directed by staff members who participate in orientation programs as well as continual in-service training programs conducted by the Office of Residence Life, located in Chubb Hall, Room 050.

The staff of most residence halls consists of a resident director and graduate or undergraduate assistants. In addition, there is a resident assistant for each group of approximately 31 students, with the exception of the Freshman Program which consists of one resident assistant to approximately every 24 students. These staff members are available for advice, assistance in emergencies, and general assistance with individual problems.

The residence staff works with the students to develop a constructive program of self-government, recreation, and cultural experience. Also, they participate in orientation programs and serve as advisors to hall organizations and committees. As representatives of the director of residence life, residence staff interpret University and administrative procedures and policies to students, and serve as referral agents for other University services.

### Speech and Hearing Services

The Speech and Hearing Clinic offers diagnostic and remedial services without charge to University students. University faculty and staff are charged for services at a nominal rate, which is less than the charges to the general public. Clinical services are available to children and adults of the community and surrounding area for a nominal charge. All types of speech and/or hearing disorders in all age ranges are evaluated and receive therapy. The audiological division is equipped and staffed to provide complete hearing diagnostic services, to determine the need for and recommend special kinds of hearing aids, and to provide therapy for all types of hearing loss.

A program for language and speech development operates in the on-campus clinic five days a week, and regional county clinics serve clients every Saturday. Undergraduate and graduate students prepare for clinical practice in public schools, special schools, private clinics, or for university teaching and research. Persons wishing counseling about the training program, information about the service program, or help with a speech or hearing problem should inquire at the clinic office in Lindley Hall between 8 a.m. and 5 p.m., Monday through Friday.

### Student Financial Aids and Scholarships

The Ohio University Office of Student Financial Aids and Scholarships will assist students who need help in financing their college educations and recognize students for their academic achievements and special talents. Financial assistance is not intended to replace the financial responsibility of the parents and students; rather it is intended to supplement that which can be provided by the family.

Insofar as funds are available, the University attempts to meet the demonstrated financial need of all eligible applicants through a program consisting of scholarships, grants, loans, and part-time employment. Additional assistance can be applied for through federal, state, and private agencies.

#### Basis for Financial Assistance Awards

The assistance offered by the Office of Student Financial Aids and Scholarships is based on the assumption that the total of (1) parents' financial contribution, (2) student's summer financial earnings, (3) available financial assistance from Ohio University, and (4) financial assistance from other sources, does not exceed the student's cost of attendance during an academic year at Ohio University.

Example (incoming freshman):

Cost-of-attendance budget (in-state)	\$4,503
Parents' contribution	—755
Summer savings	—700
Amount needed	3,048
Ohio Instructional Grant	360
Basic Educational Opportunity Grant	1,362
Ohio University Aid*	898
Total assistance awarded	2,620

\*Can consist of College Work-Study Program, National Direct Student Loan, Supplemental Educational Opportunity Grant and/or scholarship.

If you are receiving student financial assistance from the Office of Student Financial Aids and Scholarships and at a later date are awarded financial assistance from other sources (example: outside scholarship or outside employment during the school year), you must notify the Office of Student Financial Aids and Scholarships immediately as to the source and amount of such assistance. If your total resources do exceed your cost of attendance at any time during the academic year and part of your existing financial assistance involves the use of federal campus-based funds (SEOG, NDSL, or CW-SP), the Office of Student Financial Aids and Scholarships is required to delete whatever amount of assistance is determined to have exceeded your cost of attendance.

Information concerning these types of aid is available from the Director of Student Financial Aids and Scholarships, Room A, Chubb Hall, Ohio University, Athens, Ohio 45701 (Phone: 614/594-5471).

## Scholarships

Scholarships are awarded on the basis of an applicant's demonstrated excellence in academic and talent areas. Faculty from each academic college are involved in the evaluation and selection process. Financial need is not always a prerequisite.

**Manasseh Cutler Freshman Scholarships.** These one-year scholarships are valued at \$500. They are awarded to high school seniors and transfer students who have earned fewer than 45 hours. Criteria for selection may include but are not limited to class rank, grade average, ACT/SAT test scores, recommendations, activities, interviews, and audition.

**Dean's Achievement Scholarships.** Valued at \$500, these scholarships are one-year awards for upper class students (with more than 45 hours). Students are selected on the basis of criteria established by faculty in their academic colleges. Students must reapply and compete annually for renewal.

**Special Talent Awards.** A student with exceptional talent in art, athletics, creative writing, dance, debate, forensics, music, radio-TV, or theater may receive a Manasseh Cutler Scholarship (freshman) or a Dean's Achievement Scholarship (upperclass) for that talent. Interested students should contact the respective department for additional information.

**Corporate Scholarships.** Available to students majoring in specific academic areas (engineering, business, sciences) on the basis of high academic achievement, these awards range from \$300 to \$2,000 annually. Eligibility for these awards normally includes demonstrated financial need.

**Endowed Scholarships.** Available to students with high academic achievement and demonstrated financial need, these endowed scholarships are made available from contributions of alumni and friends of Ohio University and are usually restricted by geographic locality or major. Awards range from \$150 to \$2,000 per year.

**National Merit Scholarships.** These scholarships are awarded to National Merit finalists who indicate Ohio University as their first choice institution. National Merit Scholarships are four-year awards ranging in value from \$500 to \$2,000.

**Reserve Officers Training Corps Scholarships.** Four-year, three-year, two-year, and one-year scholarships are available on a competitive basis for qualified students participating in the Air Force (Aerospace Studies) or the Army (Military Science) program. These scholarships pay cost of tuition, fees, books, and laboratory expenses. In addition, recipients receive a subsistence allowance at the rate of \$100 per month for the period the scholarship is in effect. Interested students should contact the Department of Aerospace Studies or the Department of Military Science.

## Grants

(Unlike loans, grants do not have to be repaid.)

**Basic Educational Opportunity Grant Program (BEOG).** A federal aid program designed to provide

financial assistance to those who need it to attend post-high school educational institutions. It is estimated that during the 1981-82 academic year the awards will range between \$50 and \$1,750.

In order to apply for BEOG, you must file a Financial Aid Form (FAF) with the College Scholarship Service; a separate BEOG application need not be completed. An FAF may be obtained by contacting the guidance counselor at your local high school or the Director, Student Financial Aids and Scholarships, at Ohio University.

**Supplemental Educational Opportunity Grants (SEOG).** Recipients are selected from students who have submitted an FAF and Ohio University's Student Information Sheet. Grants range from \$200 to \$800 per academic year depending upon the amount of financial assistance that the parents are expected to contribute to their sons's or daughter's education.

**Law Enforcement Educational Grants.** Available on a limited basis to law enforcement personnel already employed full-time by local, state, or federal law enforcement agencies. The value of the grants covers instructional fees up to \$250 per quarter. Students should request special Law Enforcement Grant applications from the LEEP Coordinator, Student Financial Aids and Scholarships, Chubb Hall, Ohio University, Athens, Ohio 45701.

## Loan Funds

**National Direct Student Loans (NDSL).** Federal loans up to \$1,000 per year are available to undergraduate students under this program. No interest is charged on the direct loan while the student remains in school. Six months after the student terminates his or her educational program the repayment period begins at a four percent interest rate. Repayment may extend over a ten-year period. Cancellation provisions are available to students who become teachers in an area having a high concentration of low-income families or teachers who work with the educationally disadvantaged. The exact amount of the loan is determined by demonstrated financial need. A cosigner, preferably the student's parent or guardian, is required in all cases and all loans must be secured by a promissory note.

**Nursing Student Loan Program.** The guidelines are essentially the same as those listed under the National Direct Student Loan Program. However, provisions are made for cancellation if the student becomes a nurse in a shortage area. Only those students enrolled in the Associate Degree Nursing Program at Ohio University—Zanesville or the baccalaureate degree program for registered nurses at the Athens campus are eligible.

**Emergency Short-term Loan Funds.** There are emergency short-term loans (30 or 60-day) available to assist students in the payment of University bills and educationally related expenses. A student must (1) have a guaranteed source of repayment, (2) be pursuing a full time course of study, and (3) have a 2.0 accumulative average. Applications for these loans can be obtained in the Office of Student Financial Aids and Scholarships, Chubb Hall.

The availability of monies to be used for short term loans is attributed to individuals and groups interested in assisting students seeking their education at Ohio University. These loan fund donors, in alphabetical order, are

alumni, Bishop, Campus Affairs Committee, engineer, Fenzel, Lichter, Men's Union Emergency, Parks, Shaw, Student Council, C. F. White, and Women's League.

## Employment

**Centralized Student Employment Policy.** Ohio University established the Centralized Student Employment Services in 1974. This job service is centrally located in the Office of Student Financial Aids and Scholarships (020 Chubb Hall, Room A) in an effort to provide job opportunity information and placement for all students. Because the job service is centralized, students are assured an equal opportunity to apply for jobs. Discrimination by race, creed, color, ancestry, sex, handicap, and national origin is prohibited. The service also insures uniform wage rates for comparable tasks and helps to coordinate student employment policies and procedures. Except for contracts from the Office of Graduate Student Services for graduate students, all vacant student positions must be posted in the Office of Student Financial Aids and Scholarships.

All jobs are posted on a job board outside Room A. Students are referred to employing departments for interviews and job placement. A consistent grievance procedure is also followed by all departments employing students. This procedure is monitored by the Office of Student Financial Aids and Scholarships' student employment division. For more information on our Centralized Student Employment Policy, please stop by Chubb Hall and get a detailed description of the Student Employment Service from the director of Work-Study and Student Employment.

**College Work-Study Program (CWSP).** Students may earn a significant portion of their educational expenses through part-time employment in the College Work-Study Program. Students must apply for the College Work-Study Program through the Office of Student Financial Aids and Scholarships and must demonstrate financial need to qualify for the program. Employment opportunities generally coincide with the student's interest or academic major. Full-time summer employment is also available to incoming freshmen, upperclass, and graduate students who show need and live in the greater Southeastern Ohio region. Students who receive Summer Work-Study employment are generally expected to save 80 percent of their net earnings to meet expenses for the next academic year. Inquiries and requests for applications should be directed to the Director of College Work-Study and Student Employment, Office of Student Financial Aids and Scholarships, Chubb Hall, Ohio University, Athens, Ohio 45701.

## Student Life Programs

**Student Life Programs.** This area encompasses and coordinates nearly all out-of-class activities at Ohio University.

The Student Life Office is located in 309 Baker Center. One professional staff person, one secretary, and undergraduate student interns help plan and administer programs, communicate with students and student organizations, and coordinate lecture, cultural, and entertainment programs. They help maximize student input into the University decision-making process.

### The Helen Mauck Galbreath Memorial Chapel.

The chapel provides for the University and Athens communities an interdenominational center for individual and group meditation, worship, programs, or ceremony. It is open daily and is available to any student, faculty, or staff person for weddings, receptions, or services.

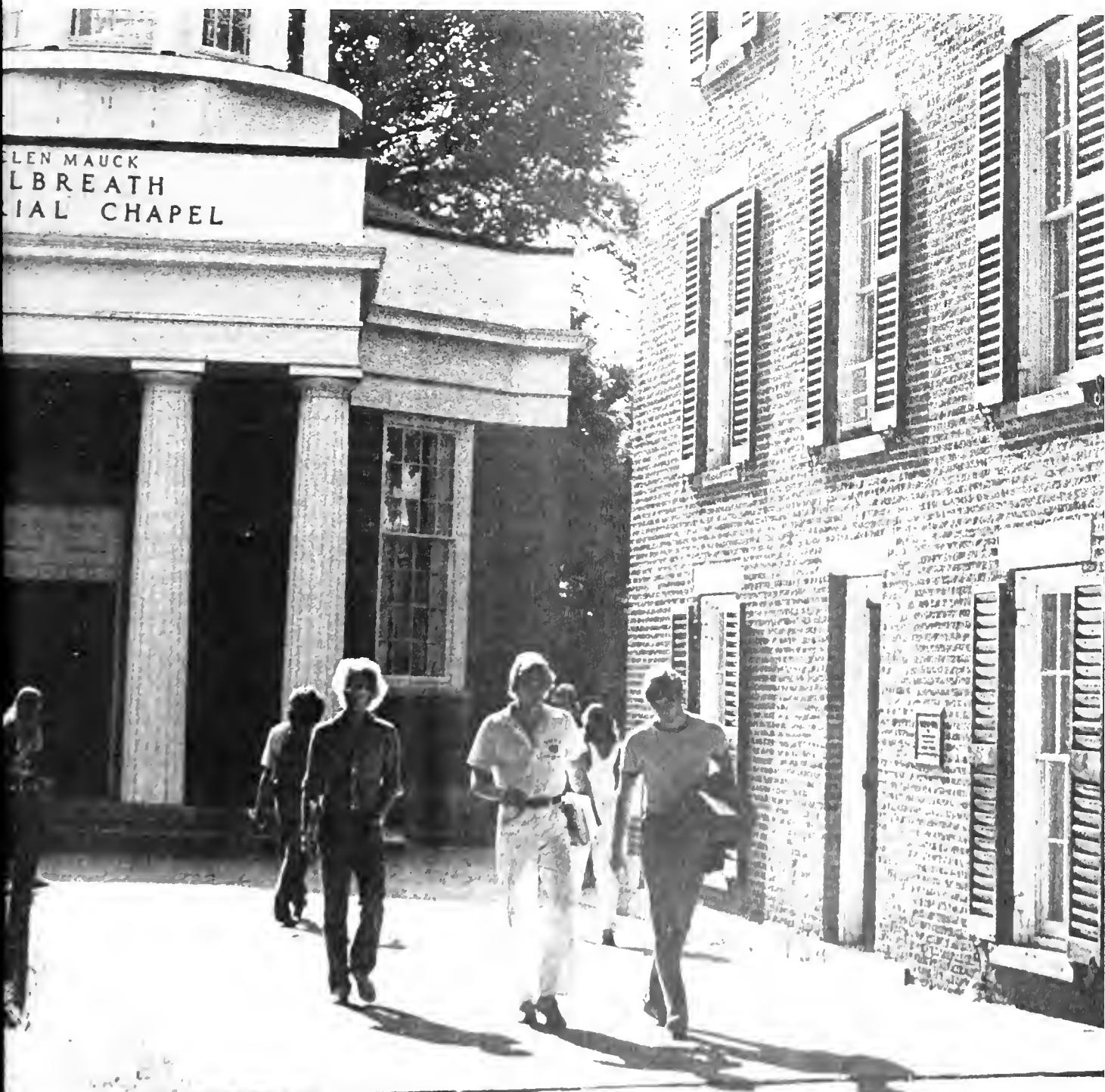
**Student Activities Commission.** This committee, which has a predominance of students, is a recommending body for policies and procedures in the student life area. It is responsible for the allocation of approximately \$50,000 to student organizations.

**The Student Senate.** Elected by the undergraduate student body, this group speaks for students on University policy and other student-interest issues which arise. It also recommends student appointees to University standing committees.

**Minority Programming.** The Office of Minority Programming offers programs in areas which meet the needs and interests of minority students. The office is staffed by a student intern who has regular working contact with several offices and organizations, including the Minority Affairs Commission of the Student Senate, the Black Student Union, National Pan Hellenic Conference, and individual black sororities and fraternities.

**Women's Programming.** The Office of Women's Programming offers educational programming, particularly in the residence halls, in such areas as assertiveness training, sex-role stereotyping, rape awareness, self-help programs, political discussions, "Women in the Arts," etc. The office, staffed by a student intern, has regular contact with many groups, including the Student Senate's Women's Commission, the Women's Collective, the Women's Panhellenic Association, and individual sororities. The office also works with women returning to the classroom and other nontraditional women students.

## Colleges and Curricula



## College of Arts and Sciences

William F. Dorrill, *Dean*

Richard D. Koshel, *Associate Dean*

Donald M. Borchert, *Associate Dean*

### *Student Affairs:*

William R. Jones, *Assistant Dean, Director of Student Affairs*

Alice O. Kemmerle, *Assistant to the Dean*

Ohio University remained a liberal arts college for almost one hundred years after it was founded. With the expansion of curricula and organization of new colleges and divisions during the last 75 years, the College of Arts and Sciences has held to what has been the central purpose of the college since 1804: to provide opportunities for the student to secure a sound liberal education. Since its focus is on the more general concerns of humanity, it is broader than, but in many cases includes, an education for immediate application. A liberal education implies teaching with a desire to impart knowledge, to encourage critical-mindedness, to increase the level of objective and quantitative thinking, to demand clear expression, and to reveal insights and ideas important to the thinking of free men and women. It also implies active effort on the part of the student to learn what is taught. Its greatest service is in its commitment to reason, in its search for basic knowledge, in its devotion to the study of mankind's many cultures. A liberal education also affords an acquaintance with the language, skills, and methods in some scholarly area at a level that is more than merely introductory. It prepares the student for advanced graduate or professional training and in many cases for a more immediate vocation. In step with the changing needs of our society, the college has maintained the central purpose of a liberal education as a sound basis for training while providing professional curricula and area studies based on research and geared to today's career opportunities.

These objectives are achieved through the courses which make up the curricula of the college — courses which historically have been regarded as the means whereby people have come to understand themselves and the world in which they live. These courses have taken a place in our academic disciplines as the result of today's technological and scholarly advances. The student gets specialized knowledge in some particular field through major requirements, and also gets a funda-

mental education in foreign languages and other humanities, social sciences, and natural sciences. In line with these goals, the following pages illustrate that the A.B. and B.S. degrees require specific courses only in the major. Beyond this, and with the University's general education requirements as a foundation, the degree requirements are designed to cause students to familiarize themselves with the languages, humanities, social sciences, and natural sciences as separate areas but with considerable freedom of choice within the areas. In addition, most programs allow for as much as a full year of elective study.

The College of Arts and Sciences is the largest and oldest college at Ohio University. Comprising 20 departments, the college offers 27 regular major programs; 14 minors; and 33 special programs which prepare for specific, career-related goals; and six majors arranged in cooperation with other colleges. As part of any of the major programs, the student may select a minor from those offered by most departments in the college, or the student may choose to complete a formal minor in business administration. The college also offers a certificate in women's studies, which can be part of any program offered by the University. A two-year associate in applied science degree program is offered in mental health technology.

## DEPARTMENTS

The College of Arts and Sciences comprises the following 20 departments:

- Afro-American Studies
- Botany
- Chemistry
  - Forensic Chemistry
  - Industrial Hygiene
- Classical Languages
- Archaeology and Antiquities



Greek  
 Latin  
 Computer Science  
 Economics  
 English Language and Literature  
   Creative Writing  
   Great Books  
 Geography  
 Geology  
 History  
 Linguistics  
   Chinese  
   Hausa  
   Indonesian/Malaysian  
   Swahili  
 Mathematics  
 Modern Languages  
   French  
   German  
   Italian  
   Portuguese  
   Russian  
   Spanish  
 Philosophy  
 Physics  
   Physical Sciences  
 Political Science  
 Psychology  
 Social Work  
   Mental Health Technology  
 Sociology and Anthropology  
 Zoology and Microbiology  
 The college also includes the Ohio Program of Intensive English (O.P.I.E.)

## DEGREES, MAJORS, AND MINORS

The college offers three four-year degrees — the bachelor of arts (A.B.), the bachelor of science (B.S.), and the bachelor of science in Afro-American Studies (B.S.A.A.S.).

A major for the A.B. degree may be completed in the following areas:

Anthropology  
 Botany  
 Chemistry  
 Classical Languages (Latin)  
 Computer Science  
 Economics  
 English Language and Literature  
 Geography  
 Geology  
 History  
 International Studies  
 Mathematics  
 Modern Languages  
   French  
   German  
   Russian  
   Spanish  
 Philosophy  
 Physics  
 Political Science  
 Psychology  
 Social Work  
 Sociology  
 Zoology

See the *Courses of Instruction* section in the back of this catalog for the major requirements.

Arts and Sciences students may complete the following non-Arts and Sciences majors earning an A.B. degree:

Art  
 Home Economics  
 Interpersonal Communication  
 Journalism  
 Music  
 Theater

Information concerning the requirements for these majors can be obtained from the dean's office.

A major for the B.S. degree may be completed in the following areas:

Botany  
 Chemistry  
 Computer Science  
 Forensic Chemistry  
 Industrial Hygiene  
 Geography  
 Geology  
 Mathematics  
 Microbiology  
 Physics  
 Zoology

See the *Courses of Instruction* section in the back of this catalog for the major requirements.

Arts and Sciences students may complete a B.S. degree in the following non-Arts and Sciences major:

Home Economics

The B.S.A.A.S. degree is awarded for the completion of the requirements for the Bachelor of Science in Afro-American Studies Program as indicated in the *Courses of Instruction* section.

The college offers the associate in applied science (A.A.S.) degree in mental health technology.

The college offers a certificate program in women's studies. This can be part of any program in the University, regardless of the college in which the student is enrolled. The awarding of the certificate is recorded on the student's permanent record. See the Special Curricula section for the requirements for this program.

The college offers formal minors in the following areas. The minor in business administration is offered in cooperation with the College of Business Administration. The other minors represent departments within the College of Arts and Sciences. See the Special Curricula section for the business administration minor requirements and the *Courses of Instruction* section for the other minor program requirements.

### Minors

Anthropology  
 Botany  
 Business administration  
 Economics  
 English  
 Geography  
 History  
 Linguistics  
 Mathematics  
 Modern languages  
 Philosophy  
 Political science  
 Psychology  
 Sociology

## SPECIAL CURRICULA

The college offers special curricula in the following:

Preparation for Advanced Training in Astronomy  
 Preparation for Advanced Training in Botany  
 Preparation for Advanced Training in Mathematics  
 Preparation for Advanced Training in Physics  
 Preparation in Agri-Business  
 Preparation in Applied Mathematics  
 Preparation in Applied Physics  
 Preparation for Cell Biology  
 Preparation in Creative Writing  
 Preparation for Criminology  
 Preparation for Dentistry  
 Preparation for Environmental Biology (Botany Emphasis)  
 Preparation for Environmental Biology (Zoology Emphasis)  
 Preparation for Environmental Chemistry  
 Preparation for Environmental Geography  
 Preparation for Environmental Geology  
 Preparation in Field Biology  
 Preparation for Forestry  
 Preparation for Government Foreign Service  
 Preparation for Horticulture  
 Preparation for Law  
 Preparation in Linguistics  
 Preparation for Medical Technology  
 Preparation for Medicine  
 Preparation for Meteorology  
 Preparation for Optometry  
 Preparation for Pharmacy  
 Preparation for Physical Therapy  
 Preparation for Theology and Religion  
 Preparation for Urban and Regional Planning  
 Preparation for Veterinary Medicine  
 Preparation in Water Resources  
 Preparation for Zoology-nutrition

See the Special Curricula section for information about these programs.

## BACHELOR OF ARTS AND BACHELOR OF SCIENCE DEGREE REQUIREMENTS

Since a student enrolled in any college at Ohio University may elect courses in any other college with considerable freedom, much of the coursework required by the other colleges is offered by the faculty of the College of Arts and Sciences. A student pursuing a degree in this college may elect courses, and in some instances may complete a major, in departments of the other degree-granting colleges.

A student entering the College of Arts and Sciences is assigned an advisor who teaches in the area of the student's major. Faculty advisors will assist in the preparation of a schedule each quarter so that the proper sequences of courses in the major and appropriate related courses are selected. **HOWEVER, THE STUDENT IS RESPONSIBLE FOR SEEING THAT ALL REQUIREMENTS FOR THE DEGREE ARE BEING MET.**

Regardless of the major they are completing, all Arts and Sciences degree students follow a basically consistent outline to determine the requirements for a particular program.

The general requirements for the A.B. or B.S. degree are a total of at least 192 quarter hours with at least 90 hours in Arts and Sciences coursework above the freshman level (numbered 200 or above) and including two years of foreign language; at least 18 hours each of humanities, social sciences, and natural sciences; the University Tier I and Tier II General Education Requirements\*; and the requirements for the chosen major as stipulated by the appropriate department. Minors are optional. The A.B. and B.S. degree programs differ only in the language requirement (see language requirement section below) and in the specific major requirements as designated by the individual departments (see major requirement section below). The following pages describe the details of these requirements in the order listed.

\*Note that courses used to fulfill Tier II requirements in many cases, can be applied simultaneously toward fulfillment of the Arts and Sciences distribution requirements.

1. Major Requirement
2. Minor Requirement
3. General Education Requirements
4. Foreign Language Requirement
5. Humanities Area Requirement
6. Social Sciences Area Requirement
7. Natural Sciences Area Requirement
8. Level of Study Requirement (Hours above 200)
9. Total Hours Required and Credit Allowed
10. Single Application of Credit
11. Averages Required
12. General Degree Information
  - a. Advising
  - b. Degree in Absentia
  - c. Double Major
  - d. Dual Major
  - e. Pass/fail
  - f. Second Bachelor's Degree
  - g. Teacher Certification
  - h. Time and Resident Load Limitations
  - i. Transfer and Transient Study
  - j. University General Education Requirement
  - k. Certificate Programs

### 1. Major Requirement

The specific requirements for each major in the departments in the College of Arts and Sciences are indicated in the *Courses of Instruction* section of this catalog. Special requirements for the preprofessional areas (preparation for medicine, preparation for law, etc.) are explained in the *Special Curricula* section which follows.

The student interested in one of the special curricula programs must complete the entire special curriculum as indicated, taking care also to see that the University General Education requirements as well as the regular degree requirements of language, humanities, social sciences, natural sciences, and 200-level hours are completed. The student who wishes to complete the regular departmental program should disregard the special curricula and refer to the appropriate major requirements in the *Courses of Instruction* section of this catalog. Requirements for the non-Arts and Sciences cooperative major programs are determined by a special advisor in each department and can be obtained from the office of the dean.

College policy requires that each department's major program consist of a minimum of 36 quarter hours in one

subject area. This includes nine quarter hours which must be taken at the junior-senior level. Specific departmental requirements also must be met. It should be noted that most departments require more than 36 hours for the major, and that the student *must fulfill the major requirements stipulated by the department.*

Methods courses are not included in the major. The A.B. degree candidate can count a maximum of 72 hours in one subject toward the degree; the B.S. degree candidate may count a maximum of 80 hours.

Formal majors in the Arts and Sciences disciplines may be completed only by students enrolled in the College of Arts and Sciences. Exceptions are teacher certification candidates who may enroll either in the College of Arts and Sciences or the College of Education, and economics majors, who may enroll either in the College of Arts and Sciences or the College of Business Administration.

## 2. Minor Requirement

The Arts and Sciences student is not required to complete a minor. However, the college offers formal minors in a number of the regular major areas (See Degrees, Majors, and Minors, preceding). These minors are available to all Arts and Sciences students regardless of their majors. With the approval of the appropriate dean, students in other colleges can earn these minors. Also available to the Arts and Sciences student is a formal minor in business administration.

College policy requires that a minor consist of a minimum of 24 hours and a maximum of 35 hours, including at least two courses at the junior-senior level. In the case of foreign languages, the minimum requirement is 21 hours beyond 213, and, for English, courses fulfilling the composition requirement do not count as part of the minor. Within these limits, the distribution of courses is determined by the department. See the Special Curricula section which follows for the business administration minor requirements and the *Courses of Instruction* section for the Arts and Sciences minor requirements.

## 3. English Composition Requirement

The student is required to complete one course selected from ENG 171, 172, 173, or 175 and one course selected from ENG 305, ENG 308, GEOG 476, HIST 301, HIST 376, IT 370, MGT 325, or JOUR 441. The 100-level course should be completed during the freshman year, and the second course should be completed during the junior year\*.

English courses fulfilling the composition requirement will apply also to the humanities area requirement. ENG 150, a remedial course, will be required of some students as the result of their performance on the placement tests required of all entering students. In this case, the regular two-course composition requirement must be completed after the successful completion of ENG 150. Credits earned for ENG 150 will apply as electives toward the required minimum of 192 hours, but will not apply to the humanities requirement. Only courses within the College of Arts and Sciences will apply to the 200-level requirement.

Transfer students who receive transfer credit for comparable courses have no additional composition requirement. Those without comparable courses must complete the requirement as described above if they began their college-level study during or after fall, 1978. Those entering a college-level program prior to this must complete

either the departmental composition requirements in existence at that time or the current requirements.

\*Other courses may be approved by the Composition Committee for application to the junior-level requirement. The student can identify these courses by checking with the office of the dean.

## 4. Foreign Language Requirement

Courses taught at Ohio University which may be used to fulfill the language requirement are the African and Asian languages (Chinese, Hausa, Indonesian/Malay-Asian, and Swahili), the classical languages (Greek and Latin), Germanic language (German), Romance languages (French, Italian, Portuguese, and Spanish), and Slavic language (Russian).

In each case, the numbers 111, 112, and 113 represent the first (beginning) year of the language and 211, 212, and 213 represent the second (intermediate) year.

### Candidates for the A.B. Degree

The A.B. degree foreign language requirement is a complete two-year sequence through 213.

Two years of high school language can be equivalent to one year of college language. The student who has completed two or three years of one language in high school and who wishes to complete the requirement in that language may do so according to the instructions in the table at the end of this section. In the case of Latin, a student with at least two years of high school Latin may also fulfill the requirement by passing GK 111-112-113 or LAT 211-212-213.

A student who has completed four or more years of one modern foreign language in high school may complete the foreign language requirement by passing course number 213, or any higher level course in that language. The student with four years of Latin in high school may elect to complete LAT 351 rather than 213. Of the choices, 351 is recommended.

### Candidates for the B.S. Degree

The B.S. degree candidate may meet the foreign language requirement with proficiency in foreign language(s) equivalent to two years of college study. To determine individual requirements, the student should bear in mind that two years of high school study in a single language is considered equivalent to one year of that language at the college level. Therefore, the student who enters college with two years of preparation in each of two languages or four years in a single language may consider the requirement for the B.S. degree already filled. The student who has had two high school years in only one language may complete the requirement by taking the college intermediate year (211, 212, and 213)\* in the same language or by taking the beginning year (111, 112, and 113) in a second language. Credit is not given toward meeting the foreign language requirement for the first and second quarters of a beginning or intermediate year unless the third quarter also is completed.

### Language Placement Table

*Although the student will not lose credit if it is necessary to repeat high school language work, he or she is advised to begin college work in foreign languages according to the following table*

Years of language  
in high school:

Begin college language at:

0-1 year .....	Course 111.
2-3 years .....	Course 211.
4-5 years .....	Course 213.

\*Note that completion of the college-level beginning year of a language taken for two or three years in high school does not complete the requirement and that bypassing sequential courses is permitted only in accordance with this table

If the student chooses to repeat high school language work, the credit earned applies, still, to the language requirement in the regular fashion, not to the humanities requirement.

## Foreign Students

Upon entering Ohio University, a foreign student whose native language is not English may satisfy the foreign language requirement by demonstrating competence in English. This must be approved by the director of the Ohio Program of Intensive English and generally requires the completion of one course in English as a foreign language. In some cases the student must seek from the chairman of the Department of Linguistics certification of his or her acceptable level of ability in a non-English language. The student may also satisfy the foreign language requirement by taking a foreign language other than his or her own.

## 5. Humanities Area Requirement\*

The humanities requirement may be met by a selection of 18 quarter hours from two or more areas, with at least eight hours in one area, from among the following:

- a. AAS 109, 110, 111, 115, 116, 119, 356
- b. archaeology
- c. art history *except* 334, 337, 338, 339 (Film), and 237, 238, and 239 (History of Photography)
- d. comparative arts
- e. Dance Cultures of the World (DANC 351, 352, 353); History of Dance (DANC 471, 472, 473); and Viewing 20th Century Dance (DANC 170 and 370)
- f. English courses *except* ENG 150.
- g. foreign language courses other than those used to complete the foreign language requirement
- h. Foreign Literatures in Translation (modern, classical) and Mythology
- i. Greek Words in the English Language (GK 127)
- j. HUM 107, 108, 109 or 307, 308, 309—Great Books
- k. HIST 121, 122, 123, 314A-F, 328, 329A-C, 330, 351, 352, 353A-B, 354, 356A-C, 357, 370, 389
- l. History and criticism of oratory
- m. History of theater
- n. philosophy
- o. Music history and literature

## 6. Social Sciences Area Requirement\*

The social science requirement may be met by a selection of 18 quarter hours from two or more areas, with at least eight hours in one area, from among the following:

- a. AAS 201, 221, 251, 252, 323, 350, 360, 402
- b. anthropology

- c. BUSL 255, 370, 442, and 475
- d. economics
- e. geography *except* 101, 301, 311, 312
- f. history *except* 121, 122, 123
- g. INST 103, 113, 121
- h. linguistics
- i. political science
- j. psychology *except* 226, 312, 314
- k. social work
- l. sociology

## 7. Natural Sciences Area Requirement\*

The natural science requirement may be met by a selection of 18 quarter hours from two or more areas, with at least eight hours in one area, from among the following:

- a. astronomy
- b. botany
- c. chemistry *except* 115
- d. computer science *except* 150
- e. GEOG 101, 301, 311, 312
- f. geology
- g. mathematics *except* 101, 120, 121, 151, and 320
- h. microbiology
- i. physical sciences
- j. PSY 226, 312, 314
- k. physics
- l. zoology

**Note:** Methods courses do not apply to the area requirements.

\*The above listings (Items 5, 6, and 7) must be used as the official guide for the completion of the Arts and Sciences area (distribution) requirements

Some courses from these categories may be applied also to the University General Education Tier II (breadth of knowledge) requirements. However, the three Arts and Sciences area categories differ in scope from the five Tier II groupings (Fine Arts and Humanities, Natural Science and Mathematics, Applied Science and Technology, Social Science, and Third World Cultures). A student wishing to select a course that will apply simultaneously to both the Arts and Sciences and the Tier II General Education requirements must take care to choose a course which has been approved for the desired category in both the college and the University requirements. (The list of courses approved for each of the Tier II categories appears at the end of the University Graduation Requirements section of this catalog.)

Exceptions to the Arts and Sciences area requirements or consideration for inclusion of courses not listed are not made on an *ad hoc* basis, but rather require formal approval of the Arts and Sciences Curriculum Committee.

## 8. Level of Study Requirement (Hours Above 200)

Within the total hours applied to the degree, at least 90 quarter hours of Arts and Sciences (liberal arts) courses must be above the freshman level; that is, they must be numbered 200 or above. Arts and Sciences courses are defined as those courses listed under humanities, social sciences, and natural sciences (#s 4, 5, and 6) above.

Education courses which are required for teacher certification may be applied toward the 200-level requirement only when the student has met all the requirements for teacher certification. These courses count also for the psychology major who plans to enter the graduate program in school psychology, upon written recommendation of the chairman of the Psychology Department certifying individual need and eligibility.

Economics majors may apply to the 200-level requirement a maximum of 15 hours from: QM 200 and 201, 441, and any advanced offering in statistics.

Non-Arts and Sciences courses are considered to be electives. These are not counted toward the 200-level requirement, but are counted toward graduation.

## 9. Total Hours Required and Credit Allowed

A minimum total of 192 quarter hours for credit is required for either degree. Only the final hours earned when courses are repeated count for graduation.

Noncredit courses (courses numbered below 100, courses completed after advanced-level work in the same field, certain technology courses and credits duplicated by repetition of coursework) are not accepted toward the 192-hour requirement. The student should be aware that one may not repeat courses for the purpose of affecting one's grade-point average after the completion of higher-level courses in the same field. Also, coursework completed at another university cannot be used to repeat coursework taken at Ohio University.

No more than 72 hours in any one subject may be counted toward the A.B. degree; and no more than 80 hours in one subject may be counted toward the B.S. degree. See the *Guidelines and General Information* section of this catalog for a description of the residence requirement, which can, for some students, increase the total hours required.

## 10. Single Application of Credit

No course may satisfy more than one of the area requirements in foreign language, humanities, social sciences, natural sciences, or the major requirement. For example, a philosophy major may not apply any courses in philosophy toward the humanities requirement. (Courses required for a major but outside the major department will be counted toward the area requirements.) However, the student majoring in a foreign language may apply courses at the beginning and intermediate levels of that language toward the language requirement since the language major is defined as including only those courses above the intermediate level. For teacher certification students, certain courses in the comprehensive major may fulfill requirements for the appropriate area; students will need to consult with their advisors on this point. Freshman-level English courses, except ENG 150, an elective, apply to the humanities requirement for all majors, including English.

## 11. Averages Required

In order to receive a degree from the College of Arts and Sciences, a student must have a minimum point-hour ratio of 2.0 on all of the following:

- 1 All hours attempted at the college level.
- 2 All hours attempted at the college level in the major.
- 3 All hours attempted at Ohio University.
- 4 All hours attempted at Ohio University in the major.

Only the final hours and points in repeated courses are counted for graduation. However, all courses including failures are included on the student's transcript. For repeated courses see the *Credit and Grading* section of this catalog. Note that the repeated course policy does not apply to the repetition of a course after a course for which it was a prerequisite has been completed. This restriction applies generally to repeating a course after higher-level work has been completed.

The graduation point-hour ratio is computed after deductions for duplicated courses have been made. Note also that courses taken at Ohio University and repeated at

another school do not result in deduction of the first grade earned.

## 12. General Degree Information

### a. Advising

The college prepares, on a quarterly basis, current degree information for each student in the form of graduation check sheets and lists of currently enrolled students grouped according to their declared majors. At advising and preregistration time each quarter, the student receives a copy of the check sheet and copies are given to the advisors, whose names are posted in the departmental offices. The student consults the list to identify his or her advisor, and should meet with the advisor not only during preregistration, but regularly throughout the year when assistance concerning academic requirements and plans is needed.

It is hoped that the student will develop a close relationship with the advisor concerning the student's academic program. Any arrangements deviating from the major requirements as described in the *Courses of Instruction* section of this catalog must be communicated to the office of the dean in writing by the department chairman or the undergraduate advising coordinator for the appropriate department. The student should visit the office of the dean when exceptional circumstances exist, upon referral by his or her advisor, or to correct errors and change programs.

To change his or her major, the student must visit the office of the dean. A change of major is not accomplished by making a change on the registration form.

When the major is changed, the advisor is changed automatically by the college. All other matters pertaining to the assignment of advisors are administered by the departmental offices.

### b. Degree in Absentia

A student who wishes to earn a degree *in absentia* must complete 144 quarter hours including the specific requirements for the chosen program at Ohio University. A point-hour ratio of 2.0 or better must be maintained on all work attempted and on all work in the major. All college area requirements must be completed, except the 200-level requirement, of which at least 45 hours must be completed. A full year's work in an accredited school of dentistry, forestry, law, medical technology, medicine, optometry, physical therapy, or veterinary medicine must be completed, and the student must be advanced without condition to the second year of training at the professional school (when the program is for two or more years). Note that the *in absentia* privilege is not available for programs in Arts and Sciences other than those listed above. For the degree *in absentia*, the student must successfully complete the professional program specified.

For the medical technology program, the student must receive the approval of the medical technology advisor; and for any other *in absentia* programs, a statement must be secured from the dean of the college before the student enters the professional school granting the degree *in absentia* privilege. The student should bear in mind that admission to the professional schools is highly competitive, requiring high level performance in the undergraduate program.

## c. Double Major

The completion of at least one formal major is required for a degree. The completion of a second major is an option which any Arts and Sciences student may elect. In this case, the student must complete all requirements for each Arts and Sciences major as described in the *Courses of Instruction* section of this catalog. Courses in either major will not apply to the area requirements, but extradepartmental requirements (such as chemistry for a zoology major) will apply to the area requirements. Also, extradepartmental requirements and area requirements need not be duplicated. For example, completing two majors does not double the humanities requirement.

## d. Dual Major

A student wishing to earn a dual major in two related fields must consult with the chairman of each department involved and the dean of the college. Most departments stipulate that the student must complete the requirements for the full major in both areas even though he or she is pursuing a dual major. Courses taken in either or both of the fields, even though not required for the major, cannot be used to complete the general distribution requirements in foreign language, humanities, social sciences, or natural sciences. The College of Arts and Sciences requires a minimum of 23 quarter hours (including nine hours at the 400-level) beyond the introductory course in each field. Specific requirements are left to the discretion of the departments concerned.

## e. Pass/Fail

Ohio University policy prohibits taking required coursework on the pass/fail basis. For the Arts and Sciences student, this means that courses applying to the foreign language, humanities, social sciences, natural sciences, major, minor, 200-level, and special curricula requirements cannot be taken pass/fail. This applies as well to the requirements for the associate in applied science degree program, effectively limiting the pass/fail option in all programs to strictly elective coursework.

The student may complete a maximum of 20 hours of elective coursework on the pass/fail basis.

## f. Second Bachelor's Degree

The A.B. or B.S. degree is granted only once to a given student. The student may, however, complete additional majors within the degree program or may earn both the A.B. and B.S. degree or degrees from separate degree-granting colleges. For the guidelines for earning a second bachelor's degree, see the *Guidelines and General Information* section of this catalog. Note that the College of Arts and Sciences requires the completion of a minimum of 240 quarter hours for the second degree or 48 hours beyond the 192 hours required for the first degree, including all specific requirements for both degree programs.

## g. Teacher Certification

Students earning either bachelor of arts or bachelor of science degrees in the College of Arts and Sciences may meet the special requirements for certification to teach in the secondary schools in Ohio by completing the regular requirements for the appropriate A.B. or B.S. degree

program plus the additional requirements for certification. Information about the certification requirements can be obtained from the Office of Student Personnel Services in Education in the College of Education.

## h. Time and Resident Course Load Limitations

The student's requirements are defined by the catalog in effect when he or she begins study in a given program (when he or she first registers at Ohio University or changes to a new major program). Upon the expiration of five years past the date of entry, the requirements become defined by the current catalog. (See the *Graduation Requirements* section of this catalog.)

The student should bear in mind that an average course load of 16 hours per quarter is considered the standard load for graduation after four years of full-time study and that a course load in excess of 20 hours in a given quarter results in an increase in the tuition fee for that quarter. Also, the student should become familiar with the residence requirements which stipulate the minimum amount of work which must be completed at Ohio University in order to receive a degree from this institution (see the *Graduation Requirements* section of this catalog).

Students who have requirements which involve courses numbered below 300 should start meeting such requirements not later than the beginning of the sophomore year. This is strongly recommended in the case of foreign language. Registration by juniors or seniors in courses numbered below 300 is discouraged and in some cases prohibited.

## i. Transfer and Transient Study

A transfer student is required to complete at least 12 quarter hours toward the major in courses at the 300 level or above in the major department at Ohio University, with a point-hour ratio of at least 2.0. These courses should be approved by the department chairperson. A transfer student completing the dual major is required to complete at least nine quarter hours at the 300 level or above in each of the two departments at Ohio University, with a point-hour ratio of at least 2.0 in each department. These courses should be approved by the chairpersons of the two departments.

The transfer student or student earning credit by transient study should keep in mind that, in order to receive a degree, he or she must have a 2.0 or better average on all work done at Ohio University and on all work done in the major at Ohio University (see #10 above).

The transfer student should note the residence requirement which stipulates that a minimum of 48 final hours (one full year) must be completed with residence credit.

The senior student wishing to earn credit by transient study should keep in mind that he or she must complete the final 16 hours in residence at Ohio University if 96 or more hours were previously earned in residence. If fewer than 96 hours were earned in this manner, the final residence requirement is 48 hours.

The student wishing to arrange to earn credit by transient study must secure approval from the dean prior to registering for such study. This permits review and clarification of requirements and procedures and prevents loss of credit.



## j. University General Education Requirements

All Arts and Sciences students enrolled in baccalaureate-level programs must complete the University's General Education requirements as indicated in the *Credit and Grading* section of this catalog.

Courses selected to fulfill these requirements will apply simultaneously to Arts and Sciences degree requirements as they normally would according to the guidelines presented in the preceding sections. Whether or not a course fulfills a University General Education requirement has no bearing upon that course's application to the Arts and Sciences degree requirements.

**The student is encouraged to read the *Credit and Grading* section of this catalog for general University academic information, including information about the grading system, probation, credit hour loads, and residence requirements.**

### Bachelor of Science in Afro-American Studies Degree Requirements

Requirements for this degree are listed under Afro-American Studies in the *Courses of Instruction* section.

## SPECIAL CURRICULA

Among the special curricula which follow, the four-year degree programs represent curricula which are structured in a way that will help the student prepare for a specific application of his or her undergraduate program to a selected educational or career objective. The student completing a given program will earn the major indicated in each case. For example, the student completing a formal premedicine program will graduate with a major in chemistry-premedicine or zoology-premedicine.

To be recognized as having completed a special curriculum and in order to complete graduation requirements, the student must complete the entire curriculum as listed, plus additional courses as necessary to complete a total of at least 192 hours, the University General Education, and the Arts and Sciences degree requirements. Should the student elect not to complete the special curriculum, then he or she, in order to complete the requirements for a major, must complete the requirements for the major as indicated in the *Courses of Instruction* section of the catalog.

### Preparation for Advanced Training in Astronomy

(Physics-Preastronomy Major, major code #3335)

The following program will lead to the B.S. degree with a physics major and will provide the background required for admission to graduate school in astronomy.

#### Freshman

English Composition	5
MATH 263A††, 263B, 263C Analyt. Geom. & Calc.	15
PHYS 251†, 252 Gen. Phys.	10
Arts and Sciences degree requirements (including language) and/or electives	

#### Sophomore

PHYS 316 Contemp. Phys.	3
PHYS 253 Gen. Phys.	5
PHYS 272 & 273 Electron. Lab.	4
MATH 340 Diff. Equations	5
MATH 441 Fourier Analysis & Partial Diff. Equations	5

MATH 450A & 450B Theory of Stat.	10
MATH 410 Matrix Theory	5
Arts and Sciences degree requirements (including language) and/or electives	

#### Junior

English Composition	5
PHYS 311 & 312 Mechanics	8
PHYS 451 & 452 Quantum Phys.	8
PHYS 453 Nuclear & Particle Phys.	4
ASTR 300 Solar System	3
ASTR 301 Sun & Stars	3
ASTR 302 Stars & Galaxies	3
ASTR 310, 311, 312 Astronomy Lab	3
PHYS 371 Intern. Lab. (Electrons)	2
PHYS 372 Intern. Lab. (Photons)	2
PHYS 373 Intern. Lab. (Nucleons)	2
PHYS 423 Optics	4
Arts and Sciences degree requirements (including language) and/or electives	

#### Senior

PHYS 427, 428, 429 Elec. & Magnetism	11
PHYS 411 Thermodynamics	4
PHYS 412 Kinetic Theory & Stat. Mechanics	4
ASTR 350 Celestial Mechanics	4
ASTR 450 Studies in Astronomy	8
Arts and Sciences degree requirements (including language) and/or electives	

For students in the Honors Tutorial Program, special combinations of some of the above courses are available.

†Physics courses complete the physics major requirements

††Math and astronomy courses complete the natural sciences requirement.

### Preparation for Advanced Training in Botany

(Botany-Advanced Training Major, major code #2116)

This program is intended for students who plan eventually to obtain advanced degrees in botany. Although the program as outlined below is adequate for the needs of most students, all interested students should be certain to consult with an advisor in the Department of Botany for individual assistance in program planning.

#### Freshman

BOT 110, 111 Intro. to Bot.	12
ZOOL 151 Intro. to Zool.	6
CHEM 141, 142 Fundamentals of Chem.	10
CHEM 143 Quant. Analysis	5
MATH 263A, 263B, 263C Analyt. Geom. & Calc.	15
Arts and Sciences degree requirements (including language) and/or electives	

#### Sophomore

BOT 307 Biol. of Algae & Mosses	6
BOT 308 Morphology of Vascular Plants	6
BOT 309 Plant Systematics & Ohio Flora	5
BOT 310 Biol. of Fungi	5
CHEM 305, 306, 307, 308, 309 Organic Chem.	13
Arts and Sciences degree requirements (including language) and/or electives	

#### Junior

BOT 424 Plant Physiology	6
BOT 431 Cytology	5
ZOOL 325 Gen. Genetics	5
PHYS 201, 202, 203 Intro. to Physics	12
Arts and Sciences degree requirements (including language) and/or electives	

#### Senior

BOT 405 Discussions about Biol.	2
BOT 425 Plant Ecology	5
BOT 475 Plant Specia. & Evolution	3
Arts and Sciences degree requirements (including language) and/or electives	

### Preparation for Advanced Training in Mathematics

(Mathematics-Advanced Training Major, major code #3102)

Students who envision eventually doing mathematics graduate work can ensure adequate preparation by building their programs around the basic mathematics offerings listed below. In addition, some computer science experience and coursework from the physical sciences is recommended. Interested students should consult an advisor in the Mathematics Department for assistance in planning their programs.

#### Freshman

MATH 263A, 263B, 263C Analyt. Geom. & Calc. .... 15  
Arts and Sciences degree requirements (including language) and/or electives.

#### Sophomore

MATH 340 Diff. Equations. .... 5  
MATH 360 Interm. Analys. .... 5  
MATH 211 Elem. Linear Algebra .... 5  
AND/OR  
MATH 214 Elem. Abstract Algebra .... 5  
Arts and Sciences degree requirements (including language) and/or electives.

#### Junior-Senior

MATH 460A, 460B, 460C Adv. Calc. .... 15  
MATH 413A & 413B Intro. to Mod. Algebra .... 10  
AND/OR  
MATH 480A & 480B Elem. Point Set Topology .... 10  
Arts and Sciences degree requirements (including language) and/or electives.

The student also is encouraged to select some other 400-level mathematics electives as time and interest permit. Some suggestions are: 470; 450A, B; 440; 441.

### Preparation for Advanced Training in Physics

(Physics-Advanced Training Major, major code #3334)

This is a demanding program for students interested in eventually getting advanced degrees in theoretical or experimental physics. However, there are included courses which would equip the graduate for career opportunities in industrial and government laboratories. Students should also consult the physics curricula and courses in the *Courses of Instruction* section of the catalog and should consult the chairman about this program in their freshman year.

#### Freshman

English Composition .... 5  
PHYS 251\* & 252\* Gen. Phys. .... 10  
MATH 263A\*, 263B\*, 263C\* Analyt. Geom. & Calc. .... 15  
Arts and Sciences degree requirements (including language) and/or electives.

#### Sophomore

PHYS 316 Contemp. Phys. .... 3  
PHYS 253\* Gen. Phys. .... 5  
PHYS 272\* & 273\* Electron. Lab. .... 4  
MATH 340\* Diff. Equations. .... 5  
MATH 441\* Fourier Analys. & Partial Diff. Equations. .... 5  
MATH 440\* Vector Analys. .... 5  
Nat Sci\* .... 12  
PHYS 303\*\* .... 3  
Arts and Sciences degree requirements (including language) and/or electives.

#### Junior

English Composition .... 5  
PHYS 311\*, 312\* Mechanics .... 8

PHYS 451\* & 452\* Quantum Phys. .... 8  
PHYS 453 Nuclear & Particle Phys. .... 4  
PHYS 371\* Interm. Lab. (Electrons) .... 2  
PHYS 372\* Interm. Lab. (Photons) .... 2  
PHYS 373\* Interm. Lab. (Nucleons) .... 2  
MATH 470† Appld. Complex Variables .... 5  
PHYS 423 Optics .... 4  
PHYS 420 Acoustics (Odd Years) .... 3  
MATH 410† Matrix Theory .... 5  
Arts and Sciences degree requirements (including language) and/or electives.

#### Senior

PHYS 427\*, 428\*, 429† Elec. & Magnetism. .... 11  
PHYS 475\*\* Adv. Lab. (Each of three quarters) .... 3-9  
PHYS 411\* Thermodynamics .... 4  
PHYS 412 Kinetic Theory & Stat. Mechanics. .... 4  
PHYS 420 Acoustics (Odd years) .... 3  
PHYS 471 Solid State Phys. .... 4  
PHYS 493 Undergraduate Seminar .... 1  
PHYS 621 Intro. Quantum Mechanics .... 5  
PHYS 622† Intro. Quantum Mechanics .... 5  
Arts and Sciences degree requirements (including language) and/or electives.

\*Note: PHYS 251, 252, 253 recommended, but PHYS 201, 202, 203 possible. This alternative is to be followed by PHYS 315.

†12 hours of natural science other than physics and mathematics are required.

\*\*Required for the B.S. degree in physics.

†Recommended.

†Recommended for those physics majors wishing to pursue graduate studies in physics.

### Preparation for Agri-Business

(Botany—Agri-Business Major, major code #2117)

This program is the same as the Preparation for Environmental Biology (Botany Emphasis) program, except that, in addition to the formal requirements of that program, the student must complete the requirements for the minor in business administration instead of the general requirements listed under Plan A. For more specific information about this option, see below under Preparation for Environmental Biology (Botany Emphasis), Plan B.

Students electing this program should consult their advisors about the selection of courses and the necessity for meeting prerequisites as well as Arts and Sciences degree requirements, including language and/or electives.

### Preparation in Applied Mathematics

(Mathematics-Applied Major, major code #3103)

This program offered by the Department of Mathematics leads to a B.S. degree in mathematics and allows an emphasis on applications of mathematics to some other disciplines. A student in this program is encouraged to elect a secondary area of concentration in one of the areas of engineering, natural science, or social science. Many options are available. The particular program will vary with the student's interests and needs. An advisor will be assigned to assist each student in designing a suitable plan. The student should ask the chairman of the Department of Mathematics for further information regarding this program. The mathematics coursework for two example study plans is given below.

*Example A.* For those whose secondary area of concentration is in economics, computer science, or industrial and systems engineering, a suggested plan includes:

#### Freshman

English Composition .... 5  
MATH 263A, 263B, 263C Analyt. Geom. & Calc. .... 15  
Arts and Sciences degree requirements (including language) and/or electives.

## Sophomore

CS 253 Intro. to Dig. Comput. Programming For Engr. & Phys. Sciences .....	5
MATH 340 Diff. Equations .....	5
MATH 360 Interm. Analys. ....	5
Arts and Sciences degree requirements (including language) and/or electives.	

## Junior

English Composition .....	4-5
MATH 450A & 450B Theory of Statistics .....	10
MATH 410 Matrix Theory .....	5
Arts and Sciences degree requirements (including language) and/or electives.	

## Senior

MATH 460A & 460B Adv. Calc. ....	10
MATH 444 Intro. to Numerical Analys. ....	5
MATH 442 Theory of Linear Programming & Nonlinear Programming .....	5
Arts and Sciences degree requirements (including language) and/or electives.	

**Example B.** For those whose secondary area of concentration is in mechanical, civil, chemical, or electrical engineering, or in chemistry or physics, a suggested plan includes:

## Freshman

MATH 263A, 263B, 263C Analyt. Geom. & Calc. ....	15
MATH 250B Finite Math. ....	5
Arts and Sciences degree requirements (including language) and/or electives.	

## Sophomore

MATH 340 Diff. Equations .....	5
MATH 360 Interm. Analys. ....	5
MATH 440 Vector Analys. ....	5
Arts and Sciences degree requirements (including language) and/or electives.	

## Junior

MATH 410 Matrix Theory .....	5
MATH 470 Appld. Complex Variables .....	5
MATH 441 Fourier Analys. & Partial Diff. Equations .....	5
Arts and Sciences degree requirements (including language) and/or electives.	

## Senior

MATH 444 Intro. to Numerical Analys. ....	5
MATH 450A & 450B Theory of Stat. ....	10
OR	
MATH 460A & 460B Adv. Calc. ....	10
Arts and Sciences degree requirements (including language) and/or electives.	

### Preparation in Applied Physics

(Physics-Applied Major, major code #3332)

This four-year program offered in the Department of Physics leads to a B.S. degree in physics and allows an emphasis in experimental techniques together with engineering or other applied sciences. Such a program offers a broad basic education in several areas fundamental to present technology and is aimed at preparing students for many physics career opportunities in industry or government laboratories.

The particular sequence of courses will vary with the student's interests. The required courses in natural science, physics, and mathematics are the same as those for students preparing for advanced training in physics. Students may then elect a sequence of courses in physics together with engineering, chemistry, or biology which are more applied in nature. Some examples of courses which may be included are: IT 101 and 102 — Engineering Drawing, CHE 331 — Principles of Engineering Materials, CE 423 — Continuum Mechanics, CE 340 —

Fluid Mechanics, ME 407 — Fundamentals of Nuclear Engineering, CHE 433 — Physical Metallurgy, PHYS 475 — Advanced Lab, PHYS 420 — Acoustics, PHYS 471 — Solid State Physics, and PHYS 470 — Special Problems.

Interested students should consult the chairman of the Department of Physics for assistance in planning their programs.

### Preparation for Botanically Related Disciplines

Although no specific curricula are offered in the following disciplines, the Department of Botany can recommend courses or curricula to students interested in pursuing careers in agronomy, marine biology, medical mycology, landscape architecture, or plant breeding. Interested students should contact an advisor in the Department of Botany for details.

Students interested in conservation, natural resources, wildlife management, environmental quality control, or similar programs should read the descriptions under Preparation for Environmental Biology (Botany Emphasis), Preparation for Field Biology, or Preparation for Forestry.

### Minor in Business Administration

Arts and Sciences students often plan careers in business, but choose their college majors because of interest in a given subject and a desire to secure a traditional, liberal arts education. This is widely recognized as a good approach for the good student. Liberal arts graduates prove to be well-informed and well-educated members of their organizational teams.

Surveys have shown, though, that executives see value in combining specific business coursework with the liberal arts program, enabling the prospective employee to learn methodologies, processes, and ideas common to the world of organizational work.

To enhance the job opportunities in business for the nonbusiness major, the colleges of Business Administration and Arts and Sciences have devised a formal minor in business administration. This unusual program has been well-received by the business community, and has become a popular option for Arts and Sciences students. Successful completion of the program is indicated on the student's permanent record.

The requirements for the business administration minor consist of 28 or more credit hours, including at least one course in each of the following areas: A. statistics, B. accounting, C. economics, D. production, E. finance, F. marketing, and G. management.

Courses recommended for the completion of these requirements are: A. PSY 121 or ECON 381 or QM 201, or an equivalent (4-5 hours); B. ACCT 101 (4); C. ECON 101 (4); D. BA 310 (4); E. FIN 325 (4); F. MKT 301 (4); and G. MGT 200 or 300 (4).

Arts and Sciences majors who wish to enroll in this program should register with the Office of the Dean of the College of Arts and Sciences.

### Preparation for Cell Biology

(Botany Major, major code #2118)

The Department of Botany offers a program in cell biology for those students interested in pursuing a profession in the broad area of biology at the cellular or molecular level. This program can provide a sound basis for a

technical career or for further study at the graduate level with a view to a career in research or teaching. As well as following closely the coursework outlined here and the requirements of the College of Arts and Sciences, students entering this program will be encouraged to elect additional coursework from the general field of biology appropriate to their chosen interest. Individual students should plan their programs in close consultation with an advisor in the Department of Botany.

#### Freshman

BOT 110, 111 Intro. to Bot.	12
ZOOL 151 Intro. to Zool.	6
CHEM 141, 142 Fundamentals of Chem.	10
CHEM 143 Quant. Anal.	5
MATH 263A, 263B Analyt. Geom. & Calc.	10
OR	
MATH 250A, 250B Finite Math.	10
ENG 172 Contemp. Writing Skills	5
Arts and Sciences degree requirements (including language) and/or electives.	

#### Sophomore

BOT 309 Plant Systematics & Ohio Flora	5
ZOOL 325 Gen. Genetics	5
CHEM 305, 306, 307, 308, 309 Organic Chem.	13
PHYS 201, 202, 203 Intro. to Physics	12
ENG 280 Expos. Writing	4
Arts and Sciences degree requirements (including language) and/or electives.	

#### Junior-Senior

BOT 312 Plant Anatomy	5
BOT 404 Undergrad. Research	4
BOT 405 Discussions about Biol.	2
BOT 424 Plant Physiology	6
BOT 426 Physiological Plant Ecology	5
BOT 431 Cytology	5
BOT 475 Plant Speciation & Evolution	3
ZOOL 460 Animal Physiology	4
MICR 411 Gen. Microbiol.	6
CHEM 351 Physical Chem.	4
CHEM 490, 491, 492 Intro. Biochem.	9
Arts and Sciences degree requirements (including language) and/or electives.	

### Preparation in Creative Writing

(English-Creative Writing Major, major code #5232)

By combining selected creative writing courses with the regular English major, the student may complete a special program in creative writing. For the specific requirements, see English Language and Literature in the *Courses of Instruction* section of this catalog.

### Preparation for Criminology

(Sociology-Criminology Major, major code #4253)

The Criminology Special Curriculum is designed for those students who would like to work in some aspect of the criminal justice system (e.g., probation, parole, or law enforcement) yet wish to receive a liberal arts education. Students completing the program may wish to consider employment in criminal justice or further study in law, criminology, or criminal justice. Students already employed in the criminal justice system may qualify for Law Enforcement Education Program financial aid. Students who complete the program will receive a degree in sociology with the emphasis in criminology noted.

Students are encouraged to enter the program as freshmen to facilitate completion in four years.

#### Freshman

English Composition	5
SOC 101 Intro. to Soc.	5

PSY 101 Gen. Psych.	5
Criminology Elective Group*	4-8
(See below)	
Arts and Sciences degree requirements (including language) and/or electives.	

#### Sophomore

SOC 361 Deviant Behavior	4
PSY 337 Social Psych. of Justice	5
SOC 362 Criminology	4
Criminology Elective Group	4-8
Arts and Sciences degree requirements (including language) and/or electives.	

#### Junior

English Composition	5
SOC 350 Social Statistics	4
OR	
SOC 351 Research Techniques	4
SOC 363 Juvenile Delinquency	4
SOC 364 Penology	4
SOC 403 Devel. Soc. Thought	4
OR	
SOC 404 Modern Soc. Theory	4
Criminology Elective Group	4-8
Arts and Sciences degree requirements (including language) and/or electives.	

#### Senior

Criminology Elective Group	4-8
Student must complete 10-15 hours from the following:	
PSY 332 Abnormal Psych.	5
PHIL 442 Phil. of Law	5
POLS 403 Judicial Process	4
POLS 404 Civil Liberties	4
POLS 409 Law Enforcement	4
POLS 471 Legal Theo. & Social Probs.	4
Arts and Sciences degree requirements (including language) and/or electives.	
Total hours required: Minimum 65; Maximum 86.	

\*Student must complete four sociology courses from the Criminology Elective Group which consists of SOC 201, 211, 329, 331, 365, and 464 for a total of 16 hours.

### Preparation for Dentistry

No specific area for the major is required by the dental colleges or by Ohio University. The student must present preparation in various basic sciences, and many students do complete a major in one science or a dual major in two sciences. Many dental schools now require at least a year of behavioral and social sciences as well as a year of English. (Refer to courses recommended to fulfill these requirements following the Zoology Major Program, code #2501.)

Currently, most dental schools are selecting students with bachelor's degrees; a very limited number who have completed three years and have met the degree in *absentia* privilege requirements are admitted.

All dental school applicants are required to take the Dental Aptitude Test, offered during the academic year previous to the time the student plans to enroll in dentistry, preferably not later than the fall testing date.

(Chemistry-Predentistry Major, major code #3312)

Predentistry students wishing to major in chemistry should follow the program for the premedical chemistry major.

(Zoology-Predentistry Major, major code #2501)

The following sequence of courses is required for predentistry students majoring in zoology. Additional selections from the recommended electives listed after the junior-senior program are encouraged. Students who elect the degree in *absentia* option must complete a minimum of 36 hours in zoology/microbiology; those

who elect the four-year program must complete a minimum of 45 hours in zoology/microbiology.

Freshman	
CHEM 141 Fundamentals of Chem. ....	5
CHEM 142 Fundamentals of Chem. ....	5
CHEM 143 Quant. Analys. ....	5
English Composition ....	5
MATH 163A-B Intro. to Calc. ....	8
OR	
MATH 263A-B Analyt. Geom. & Calc. ....	10
ZOOL 150 and 151 Intro. to Zool. ....	12
Arts and Sciences college degree requirements and/or electives. (English and comparative arts are recommended.)	

Sophomore	
PHYS 201, 202, 203 Intro. ....	12
CHEM 301, 302 Organic (short) ....	6
OR	
CHEM 305, 306, 307 Organic (long) ....	9
ZOOL 303 Compar. Vert. Anatomy ....	6
ZOOL 325 Gen. Genetics. ....	5
Language if needed. ....	12
Recommended: PSY 121, IT 109	

Junior	
CHEM 303, 304 Organic Lab (short) ....	3
OR	
CHEM 308, 309 Organic Lab (long) ....	4
*ZOOL 448 Cell Physiology (recommended, not required) ....	4
English Composition ....	5
Language if needed. ....	12
Other humanities and social sciences	

Junior-Senior	
ZOOL 463 Cell Chemistry ....	4
OR	
CHEM 489 Basic Biochem. ....	4
OR	
CHEM 490, 491 Intro. Biochem. ....	6
*ZOOL 460 Animal Physiology ....	4

\*Either ZOOL 448 or 460 is required.

Other ZOOLOGY courses strongly recommended: 404, 406, 408, and MICR 411.

Recommended behavioral and social sciences: ANTH 355, 370; Sociology courses, PSY 131, 173, 332, 336

Recommended humanities: GK 127, philosophy, literature, comparative arts

## Preparation for the Study of the Environment

The study of the environment includes the physical nature of the planet as well as plant and animal interactions involving space, land, water, and other living organisms. Within the College of Arts and Sciences, the departments of Botany, Chemistry, Geography, Geology, and Zoology and Microbiology offer programs for preparation in the study of the environment. These programs allow students to develop a fundamental knowledge of the nature of basic environmental parameters, a sense of the complex interactions of living organisms, including man, on those parameters and a basis for approaching solutions to problems resulting from this impact. A student choosing to major in the study of the environment at Ohio University should choose a discipline for intensive investigation (botany, chemistry, geography, geology, zoology/microbiology) and, in consultation with the advisor in that department, develop a program of study to meet the particular goals of that student.

## Degree-Granting Programs in the Study of the Environment

The following programs are offered. The requirements for each are listed below.

1. Preparation for Environmental Biology (Botany Emphasis)
2. Preparation for Environmental Biology (Zoology Emphasis)
3. Preparation for Environmental Chemistry
4. Preparation for Environmental Geography
5. Preparation for Environmental Geology

### 1. Department of Botany

#### Preparation for Environmental Biology

(Botany-Environmental Biology Major, major code #2113 or Botany—Agri-Business Major, major code #2117)

The Department of Botany offers a preprofessional program designed to give the student a broad base for developing a career in biology with an emphasis on the environmental aspects of the science. Although students who elect this program may find it to be satisfactory for their own goals, some additional training in the specialized fields should be anticipated. Such postgraduate work may be obtained at schools of conservation and wildlife management, schools of forestry, graduate colleges in ecology, or at similar institutions. Students whose main interests are toward careers in conservation, natural resources, forestry, environmental quality control, and ecology should find this program of value. Because of the high degree of professionalism required in these fields, the need for training beyond this program cannot be over-emphasized. A student who elects this curriculum should consult immediately with an advisor in the Department of Botany. No substitutions should be made in this program without first consulting with such advisor.

Freshman	
BOT 110, 111 Intro. to Bot. ....	12
ZOOL 151 Intro. to Zool. ....	6
CHEM 141, 142 Fundamentals of Chem. ....	10
CHEM 143 Quant. Analys. ....	5
MATH 163A, 163B Intro. to Calc. ....	8
OR	
MATH 250A, 250B Finite Math. ....	10
OR	
MATH 263A, 263B Analyt. Geom. & Calc. ....	10
(Note: Students should be certain to see an advisor before making a choice of math sequence.)	
Arts and Sciences degree requirements (including language) and/or electives.	

Sophomore	
BOT 247 Vegetation of North Am. ....	4
BOT 309 Plant Systematics & Ohio Flora ....	5
CHEM 301, 302 Organic Chem. ....	6
PHYS 201, 202 Intro. to Physics. ....	8
Arts and Sciences degree requirements (including language) and/or electives.	

Junior-Senior	
BOT 310 Biol. of Fungi. ....	5
BOT 331 Plant Cytogenetics ....	3
OR	
ZOOL 325 Gen. Genetics. ....	5
BOT 404 Undergrad. Research ....	2
OR	
BOT 405 Discussions about Biol. ....	2
BOT 410 Plants & Soil ....	4
BOT 420 Fresh-Water Algae ....	5
BOT 424 Plant Physiology ....	6
BOT 425 Plant Ecology ....	5
BOT 426 Physiological Plant Ecology ....	5
BOT 475 Plant Speciation & Evolution ....	3
MICR 411 Gen. Microbiol. ....	6

Electives from the following courses are recommended:

BOT 248 Trees & Shrubs .....	5
BOT 307 Biol. of Algae & Mosses .....	6
BOT 308 Morphology of Vascular Plants .....	6
BOT 312 Plant Anatomy .....	5

In addition to the formal program outlined above, the following general requirements should be included in the environmental biology curriculum (students should be certain to see an advisor for appropriate courses to be selected):

**Plan A** (Botany — Environmental Biology Major, major code #2113)

Geography .....	12
Geology .....	8
Economics (including 313) .....	12
Computer science and statistics .....	10

**Plan B** (Botany — Agri-Business Major, major code #2117)

Under this option, students must complete the minor in business administration, including the following recommended courses:

Statistics	
PSY 121 Elem. Stat. for the Behavioral Sci. ....	5
OR	
QM 201 Intro. to Prob. & Stat. (recommended) ....	4
OR	
ECON 381 Stat. for Economists .....	4
OR	
equivalent	
Accounting	
ACCT 101 Managerial Acct. ....	4
Economics	
ECON 101 Principles — Macroecon. ....	4
Production	
BA 310 Prod. Management .....	4
Finance	
FIN 325 Managerial Finance .....	4
Marketing	
MKT 301 Marketing Principles .....	4
Management	
MGT 200 Intro. to Management .....	4
OR	
MGT 300 Management .....	4

Students electing this program should consult their advisors about the selection of courses and the necessity for meeting prerequisites as well as Arts and Sciences degree requirements (including language) and/or electives.

## 2. Department of Zoology and Microbiology

### *Preparation for Environmental Biology*

(Zoology-Environmental Biology Major, major code #2509)

The program in environmental biology offered through the Department of Zoology and Microbiology provides a background for students preparing for graduate school or careers in animal ecology, evolutionary biology, wildlife biology, freshwater biology, marine biology, conservation, environmental science, animal propagation and care, natural resource management, pollution biology, and others. Selection of courses to fit individual curriculum needs and career goals can be made in the junior-senior program in consultation with the major advisor. It is recommended that the course schedule for the first two years be followed closely.

#### Freshman

ZOOL 150 Intro. to Zool. ....	6
ZOOL 151 Intro. to Zool. ....	6

BOT 111 Plant Biol. ....	5
CHEM 141-142 Fundamentals of Chem. ....	10
CHEM 143 Quant. Analys. ....	5
English Composition .....	5
PSY 121 Elem. Stat. ....	5
Arts and Sciences college degree requirements and/or electives.	

#### Sophomore

CHEM 301-302 Organic. ....	6
MATH 163A-163B Intro. to Calc. ....	8
OR	
MATH 263A-263B Analyt. Geom. & Calc. ....	10
PHYS 201-202 Intro. to Phys. ....	8
ZOOL 325 Genetics .....	5
ZOOL 375 Animal Ecology .....	3
ZOOL 376 Ecology Laboratory .....	2
Arts and Sciences college degree requirements and/or electives.	

#### Junior-Senior

English Composition .....	4-5
ZOOL 460 Animal Physiology .....	5
ZOOL 473 Animal Behavior .....	5
ZOOL 477 Population Biol. ....	4
ZOOL 479 Evolution. ....	4

Plus at least 16 hours from among the following courses or others dealing with the environment in consultation with the advisor:

MICR 211-212 Environmental Microbiology	
MICR 411 Gen. Microbiology	
ZOOL 271 Field Ornithology	
ZOOL 429 Marine Biology	
ZOOL 430 Invertebrate Zoology	
ZOOL 431 Limnology	
ZOOL 432 Field Hydrobiology	
ZOOL 435 Gen. Entomology	
ZOOL 439 Field Entomology	
ZOOL 468 Ichthyology	
ZOOL 471 Ornithology	
ZOOL 472 Herpetology	
ZOOL 474 Mammalogy	
ZOOL 478 Pop. Bio. Lab.	
ZOOL 485 Undergrad. Research	

Other Arts and Sciences college requirements and/or electives to be considered.

Social Sciences: BA 465; BUSL 370; ECON 101, 102, 213, 313; GEOG 140, 141, 142, 201, 242, 311, 312, 327, 422, 429

Humanities: GK 127; PHIL 216, 416

Science: ZOOL 433, 442; BOT 308, 309, 420, 424, 426; CHE 460; CE 450, 451, 452, 455, 456, 458; GEOL 211, 270, 291, 310, 340, 406, 448; INCO 103; IT 336; QM 420; ME 470

## 3. Department of Chemistry

### *Preparation for Environmental Chemistry*

(Chemistry-Environmental Major, major code #3315)

Students preparing for careers in environmental chemistry should pursue the regular B.S. or A.B. degree in chemistry and take some of the following environmentally related courses as electives. The Chemistry Department has advisors in environmental chemistry to assist students in planning their studies in the field.

The major requirement for the B.S. degree includes the following: 141-142-143; 305-306-307; 308-309; 400; 453-454-455; 456-457; 476; 484-485; 489 or 490-1-2; and three additional hours (other than 499) above 400. Extradepartmental requirements include MATH 263A-B-C, PHYS 251-252-253, and ENG 172, which should be completed by the end of the second year. The B.S. degree program is chosen by students contemplating entrance into graduate programs in chemistry.

The major requirement for the A.B. degree includes the following: 141-142-143; 301-302 or 305-306-307; 303-304 or 308-309; 325 or 484-485; 351 or 453-454-455; 476; and a course in biochemistry. A full year's work is required in at least one of the following fields: analytical (143-484-485); organic (305-306-307); physical (453-454-455) or biochemistry (490-491-492). ENG 172 is also required.



The following environmentally related electives are suggested courses to choose from: BOT 110 or ZOOL 150; BOT 111, 425, 426; CHEM 330, 479, 483; GEOL 201, 291A, 291E, 291I, 407, 432, 480, 481; ISE 304; MICR 211, 212, 411, 412; ZOOL 151, 475, 476, 477, 479; BUSL 255, 370, 475; ECON 313; GEOG 201, 327, 422; PSY 335; SOC 340.

#### 4. Department of Geography

##### *Preparation for Environmental Geography*

(Geography-Environmental Major, major code #4232)

Students preparing for a career in environmental geography should pursue a B.S. degree with a major in geography. Students planning to follow this curriculum should consult the chairman of the Department of Geography as soon as they elect this program so that they can be assigned to advisors.

Students in this program are required to complete a minimum of 192 hours, including geography major requirements, the Arts and Sciences degree requirements in foreign languages and humanities; the University English composition requirement; and the courses listed below:

GEOG 201 Environ. & Man.	4
GEOG 327 Resource Mgt. & Conservation	4
GEOG 331 Geog. of Agricultural Activity	4
GEOG 301 Adv. Phys. Geog.	4
GEOG 311 Elements of Meteorology	4
GEOG 422 Population Geog.	4

Geography electives of interest are:

GEOG 230 Intro. to Urban Geog.	4
GEOG 260 Map Reading & Interp.	4
GEOG 365 Air-Photo Interp.	4
GEOG 380 Remote Sensing	5
GEOG 420 Land Use Planning	4
GEOG 430 Adv. Urban Geog.	4

Choose at least 18 hours from either the biological sciences or earth sciences groups below. The student should take at least eight hours in one subject area and at least two different subject areas. This concurrently will satisfy the Arts and Sciences natural sciences degree requirement.

##### *Biological Sciences.*

BOT 101*	5
BOT 102 Plant Biol.	5
BOT 103 Biol., Plants & Man.	4
BOT 110* Intro to Bot.	6
BOT 111 Intro to Bot.	6
BOT 247 Veg. N. Amer.	4
BOT 425 Ecology	5
BOT 426 Phys. Plant Ecology	5
MICR 211 Environ. Microbiology	3
MICR 212 Environ. Microbiology Lab.	2
ZOOL 101* Prin. of Biol.	5
ZOOL 150* Intro. to Zool.	6
ZOOL 151 Intro. to Zool.	6
ZOOL 103 Human Biol.	4
ZOOL 375 Animal Ecology	3
ZOOL 376 Ecology Lab	2
ZOOL 477 Population Zool	4
ZOOL 478 Population Zool. Lab.	3

\*Note that credit is awarded only for one of the following courses: BOT 101, BOT 110, ZOOL 101, ZOOL 150. Note also that credit is not awarded for both BOT 102 and BOT 111.

##### *Earth Sciences*

GEOL 101 Earth Materials & Struct.	4
GEOL 102 Surface Proc. & Environ. Geol.	4
GEOL 201 Man & Phys. Environ.	4
GEOL 211 Intro. Oceanography	3
GEOL 291 Selected Topics in Geol.	2
GEOL 330 Prin. of Geomorphology	5
GEOL 432 Origin & Classification of Soils	4

GEOL 480 Hydrogeology I.	4
GEOL 481 Hydrogeology II.	4

Choose at least 18 hours from the list below. This should include at least eight hours in one subject area and at least two different subject areas. This concurrently will satisfy the Arts and Sciences social sciences requirement.

BUSL 255 Law & Society.	4
BUSL 370 Environ. Law	4
ECON 101 Principles	4
ECON 102 Principles	4
ECON 303 Microeconomics	4
ECON 304 Macroeconomics	4
ECON 313 Econ. of the Environ.	4
HIST 333 Oil, Energy, Interna. Diplomacy.	4
PSY 335 Environ. Psych.	4
SOC 340 Population Analys.	4

#### 5. Department of Geology

##### *Preparation for Environmental Geology*

(Geology-Environmental Major, major code #3323)

The preprofessional program in environmental geology, offered by the Department of Geology, is designed to provide the student with broad training in preparation for a career in conservation, natural resource management, land-use planning, and environmental quality control. In most instances, students electing this degree option should anticipate further training at the graduate level. It is of utmost importance that students enrolling in this program consult the undergraduate advisor in the Department of Geology before planning their schedule of coursework. The program permits development of individualized curriculum needs during the junior and senior years. However, the outlined course schedule should be followed closely during the first two years of study.

##### *Freshman*

GEOL 101 Intro. to Geology	5
OR	
GEOL 283 Geol. for Engineers	5
GEOL 330 Prin. of Geomorphology	5
GEOL 256 Hist. Geol.	4
GEOG 201 Environ. & Man.	4
BOT 110 or ZOOL 150	6
CHEM 141 Fundamentals of Chem.	5
CHEM 142 Fundamentals of Chem.	5
CHEM 143 Quant. Analysis	5
ENG 172 Contemp. Wrtng. Skills	5

##### *Sophomore*

GEOL 211 Intro. Oceanography	3
GEOL 310 Rocks & Minerals	5
GEOL 350 Strat.-Sediment	4
GEOG 230 Intro. to Urban Geog.	4
MATH 163 A-B Intro. to Calc.	8
OR	
MATH 263 A-B Analyt. Geom. & Calc.	10
PHYS 201 Intro. to Phys.	4
PHYS 202 Intro. to Phys.	4

##### *Junior-Senior*

English Composition	4-5
GEOL 360 Struct. Geol.	4
GEOL 407 Topog. Map & Aerial Photo Interp.	4
GEOL 432 Origin & Classification of Soils	4
GEOL 480 Hydrogeology I	4
GEOG 327 Geog. Perspective on Resource Mgt. & Conservation	4

In addition to the program requirements outlined above, the student should select additional coursework from either of the following groups:

BOT 425 Ecology	5
BOT 426 Physiol. Plant Ecology	5
ZOOL 151 Intro. to Zool.	6
ZOOL 375 Animal Ecology	3

ZOOL 477 Pop. Biol. ....	4
CHEM 301 Organic Chem. ....	3
CHEM 302 Organic Chem. ....	3
CHEM 325 Instr. Methods of Analys. ....	4
CHEM 479 Radiochem. ....	4
CHEM 330 Toxicology ....	4

Other electives recommended for consideration by the student include: BA 465; BUSL 370; CHE 460; CE 450, 451, 452, 455, 456, 458; CS 253; ECON 101, 102, 213; GEOG 311, 312, 422, 429; INCO 103; ISE 305; QM 420; ME 470.

### Preparation for Field Biology

(Botany-Field Biology Major, major code #2115)

The program in field biology offered through the Department of Botany is designed to prepare students for employment as park naturalists and in outdoor education, outdoor nature programs, conservation, and others. The program is not designed to prepare students for advanced training in more specialized fields. It should be emphasized that students who enter this program, if they later decide to pursue advanced training in biology, will have to acquire additional background in physics, math, and chemistry. Students anticipating entering graduate school in biologically oriented disciplines should elect one of the preprofessional programs in botany or the traditional botany program. Students wishing to include a minor in business administration with this program should consult with an advisor in the Department of Botany for details.

#### Freshman

BOT 110, 111 Intro. to Bot. ....	12
ZOOL 151 Intro. to Zool. ....	6
CHEM 121, 122, 123 Principles of Chem. ....	12
Arts and Sciences degree requirements (including language) and/or electives.	

#### Sophomore

BOT 247 Vegetation of North Am. ....	4
BOT 248 Trees & Shrubs ....	5
BOT 307 Biol. of Algae & Mosses ....	6
PHYS 201, 202 Intro. to Physics ....	8
GEOG 101 Elements of Physical Geog. ....	5
GEOG 201 Environ. & Man. ....	4
Arts and Sciences degree requirements (including language) and/or electives.	

#### Junior-Senior

BOT 308 Morphology of Vascular Plants ....	6
BOT 309 Plant Systematics & Ohio Flora ....	5
BOT 310 Biol. of Fungi ....	5
BOT 404 Undergrad. Research ....	4
BOT 425 Plant Ecology ....	5
ZOOL 271 Field Ornithology ....	2
ZOOL 375 Animal Ecology ....	3
ZOOL 435 Gen. Entomology ....	6
ZOOL 474 Mammalogy ....	6
GEOG 311 Elements of Meteorology ....	5
GEOL 101 Intro. to Geol. ....	5
GEOL 201 Man & Physical Environ. ....	4
Arts and Sciences degree requirements (including language) and/or electives.	

### Preparation for Forestry

(Botany-Preforestry Major, major code #2112)

Although no professional forestry program is offered at Ohio University, the Department of Botany does have cooperative arrangements with schools of forestry, forestry resources or natural resources at other universities whereby students can obtain some preprofessional training at Ohio University and then transfer to one of the cooperating universities to complete their professional programs in forestry or related disciplines. Cooperative programs are currently in effect with the University of

Michigan at Ann Arbor, North Carolina State University at Raleigh, and Duke University. These programs are described briefly below.

### Ohio University - University of Michigan

The Ohio University - University of Michigan cooperative program enables the student to obtain a bachelor of science degree in either natural resources or forestry from the University of Michigan upon successful completion of the selected program. The student attends Ohio University for three years, then transfers to the University of Michigan to complete either program. A minimum of two semesters of coursework at the University of Michigan is necessary to complete requirements for the B.S. in natural resources, whereas a minimum of four semesters of coursework at the University of Michigan, plus summer camp, is necessary to complete requirements for the B.S. in forestry. The following courses must be taken at Ohio University before transferring to the University of Michigan for completion of either the natural resources or forestry programs.

#### Freshman

BOT 110, 111 Intro. to Bot. ....	12
BOT 307 Biol. of Algae & Mosses ....	6
CHEM 141, 142 Fundamentals of Chem. ....	10
ECON 101 Principles — Macroecon. ....	4
ECON 102 Principles — Microecon. ....	4
ECON 303 Microecon. ....	4
ECON 304 Macroecon. ....	4

In addition, the following courses should be taken for the program indicated:

#### B.S. in Natural Resources

CHEM 143 Quant. Analys. ....	5
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#### B.S. in Forestry

GEOL 101 Intro. to Geol. ....	5
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#### Sophomore

BOT 248 Trees & Shrubs ....	5
BOT 308 Morphology of Vascular Plants ....	6
BOT 309 Plant Systematics & Ohio Flora ....	5
ZOOL 151 Intro. to Zool. ....	6
MATH 250A, 250B Finite Math. ....	10
ECON 304 Macroecon. ....	4
ENG 172 Contemp. Writing Skills ....	5
PSY 101 Gen. Psychology* ....	5

#### OR

ENG 280 Expos. Writing** ....	4
The following additional course is necessary only for the B.S. in Natural Resources:	
INCO 103 Public Speaking ....	4

#### Summer Session

Students in the B.S. in Forestry Program should attend summer camp between their sophomore and junior years. Applicants are accepted on a first-come, first-served basis, so students should see their advisors for an application form during winter quarter of their sophomore year.

#### Junior

BOT 424 Plant Physiology ....	6
BOT 425 Plant Ecology ....	5
PHYS 201, 202 Intro. to Physics ....	8
CS 201 Intro. to Computing ....	5
PSY 101 Gen. Psychology* ....	5
OR	
ENG 280 Expos. Writing** ....	4
Foreign Language** ....	12

\*Or equivalent social sciences area electives

\*\*Or equivalent humanities area electives

## Ohio University - North Carolina State University

The cooperative program between Ohio University and North Carolina State University at Raleigh is a 2 + 2 forestry program. Students in this program complete their freshman and sophomore years at Ohio University and then apply for transfer to North Carolina State for their junior and senior years. Upon satisfactory completion of one of six curricula, the bachelor of science degree is conferred by North Carolina State University. The six curricula are: conservation, forestry, natural resource recreation management, recreation and parks administration, pulp and paper science and technology, and wood science and technology. The course of study for the freshman and sophomore years at Ohio University is:

## Freshman

BOT 110, 111 Intro. to Bot.	12
MATH 263A*, 263B*, 263C* Analyt. Geom. & Calc.	15
INCO 103 Public Speaking	4
Phys. Ed.	3
Arts and Sciences degree requirements (including language) and/or electives.	

## Sophomore

BOT 248 Trees & Shrubs	5
(OR botany elective)	
CHEM 141*, 142* Fundamentals of Chem.	10
CHEM 143* Quant. Analys.	5
PHYS 201*, 202* Intro. to Physics	8
ECON 101 Principles — Macroecon.	4
ECON 303 Microecon.	4
ECON 304* Macroecon.	4
(OR general elective)	
Phys. Ed.	3
Arts and Sciences degree requirements (including language) and/or electives.	

\*For the Recreation and Parks Administration Program the following substitutions are recommended. 1) MATH — 163A, 163B and ISE 304. 2) CHEM 121 and 122; 3) Physics — none required, substitute physical science elective; 4) SOC 101 could be added for a social science elective

Students transferring to North Carolina State University must have an overall C+ average on all college-level work and be in good standing with Ohio University. If admitted, the transfer student's record will be evaluated to determine the amount of credit that can be transferred and applied toward degree requirements at N.C. State. The evaluation must be approved by the dean of the School of Forest Resources.

## Ohio University - Duke University

Ohio University also offers a cooperative program with Duke University in the areas of environmental management and forestry. The student will earn the bachelor's and master's degrees in five years, spending three years at Ohio University and two years at Duke's School of Forestry and Environmental Studies. The student must fulfill all the distributional (general degree) requirements by the end of the junior year. The first year's work at Duke will complete the undergraduate degree requirements and the B.A. or B.S. will be awarded in *absentia* by Ohio University at the end of the first year at Duke. Duke will award the professional degree of master of forestry or master of environmental management to qualified candidates at the end of the second year. For more information on the Duke program, interested students should contact an advisor in the Department of Botany at Ohio University. A curriculum plan will be placed on file for the student in the office of the dean.

Students who may wish to enroll at Ohio University for preprofessional training in plant science before transferring to schools of forestry or natural resources other than

those listed above should contact an advisor in the Department of Botany for a suggested preforestry curriculum. Some students may prefer to attend Ohio University for four years to obtain a B.S. degree in one of the appropriate major areas of botany before applying for graduate study in forestry at other universities. Interested students should contact an advisor in the Department of Botany for appropriate curricula.

## Preparation for Government Foreign Service

(History-Preforeign Service Major, major code #4212)  
(Political Science-Preforeign Service Major, major code #4202)

Students desiring to prepare for the foreign service officer examinations, which are given yearly, are advised to acquire as broad an education as possible. Facility in written and spoken English; competency in a foreign language; and a good background in economics, history, political science, business, or public administration are essential. More detailed information about foreign service officer examinations, including sample questions from previous examinations, may be obtained from the Political Science Department.

## Preparation for Horticulture

(Botany-Horticulture Major, major code #2114)

The Department of Botany offers a preprofessional program designed to provide students with a broad base for developing a career in horticulture, agronomy, or agricultural sciences. Although students who elect this program may find it useful for their own goals, it must be anticipated that additional training at the graduate level will be required in specialized fields. Such postgraduate work is obtainable at schools offering advanced degrees in horticulture, agriculture, and related disciplines. Because of the high degree of professionalism required in these fields the need for additional training cannot be over-emphasized. As the following program provides nearly all of the basic groundwork for advanced work, no substitutions should be made.

Students wishing to include a minor in business administration with this program should consult with an advisor in the Department of Botany for details.

## Freshman

BOT 110, 111 Intro. to Bot.	12
CHEM 141, 142 Fundamentals of Chem.	10
CHEM 143 Quant. Analys.	5
MATH 163A, 163B Intro. to Calc.	8
OR	
MATH 250A, 250B Finite Math.	10
Arts and Sciences degree requirements (including language) and/or electives.	

## Sophomore

BOT 248 Trees & Shrubs	5
BOT 250 Econ. & Horticultural Plants	4
BOT 252 Basic Horticulture	4
BOT 308 Morphology of Vascular Plants	6
ZOOL 151 Intro. to Zool.	6
CHEM 301, 302, 303, 304 Organic Chem.	9
Arts and Sciences degree requirements (including language) and/or electives.	

## Junior-Senior

BOT 309 Plant Systematics & Ohio Flora	5
BOT 310 Biol. of Fungi	5
BOT 315 Greenhouse Mgt. & Techn.	2
BOT 331 Plant Cytogenetics	3
BOT 410 Plants & Soil	4

BOT 412 Plant Pathology .....	5
BOT 424 Plant Physiology .....	6
BOT 425 Plant Ecology .....	5
ZOOL 325 Gen. Genetics .....	5
ZOOL 435 Gen. Entomology .....	6
PHYS 201, 202 Intro. to Physics .....	8
Arts and Sciences degree requirements (including language) and/or electives.	

## Preparation for Law

(History-Prelaw Major, major code #4214)

(Political Science-Prelaw Major, major code #4203)

A student in the College of Arts and Sciences, who plans to enter law school, normally completes the specific requirements for the bachelor of arts degree. No special curriculum is prescribed. The prelaw student may complete a major in the area of his or her principal interest. The student is advised to select courses from as many of the following as possible: English composition and literature and American literature; history, with a preference for English and American; political science; economics; sociology; a laboratory science; mathematics; philosophy; ethics; logic; accounting; psychology; and a foreign language. Courses in speech and training in expression, as well as activities that develop the capacity for independent thought and action, are recommended. The departments of History and Political Science designate faculty advisors to help students interested in law careers. These advisors have information about the Law School Admissions Test and can supply application blanks for this test.

The Ohio Supreme Court has ruled that a student entering law school must be able to show possession of an undergraduate degree from an approved college if he or she wishes to take the Ohio Bar Examination. Law schools in the state of Ohio require the degree of all entering students regardless of the state in which they plan to take the bar examination.

The degree *in absentia* privilege is available to students who do not plan to seek admission to an Ohio law school. A student who has completed 144 quarter hours at Ohio University with a point-hour ratio of 2.0 or above on all hours attempted and who has satisfied the requirements for the A.B. or B.S. degree may obtain the degree after completing, at an accredited school of law, a full year's work of the quality prescribed for a bachelor's degree at Ohio University, provided he or she is eligible for advancement without condition to the second year of law school. Prior to entering the school of law, the student must secure a statement in writing from the dean giving the *in absentia* privilege.

## Preparation in Linguistics

The undergraduate student with an interest in linguistics should take one of the minors offered in the Department of Linguistics. There are three minors to choose from: general linguistics, sociolinguistics, and English as a second language. Moreover, it is possible to apply for admission into the Bachelor of General Studies Program (see entry in the *Special Programs* section of this catalog). If accepted, the student may work toward the B.G.S. degree following a program planned to give the strongest preparation for graduate study in linguistics that the resources of the University allow. Or, the student may work within one of the departments permitting programs that are linguistically oriented. See, for example, the programs in English, modern languages, and hearing and speech sciences. Depending upon the kind of linguistics

the student wishes to study, he or she may want to consider an undergraduate major in mathematics, psychology, or philosophy. Students interested in anthropological linguistics may want to consider the various course offerings in anthropology and those associated with the Center for International Studies programs: courses in African languages and particular aspects of African culture, or courses in Southeast Asian languages and cultures. (See the entry *Center for International Studies* in this catalog.)

Inquiries concerning the linguistics minors or on planning undergraduate programs with emphasis upon linguistics may be directed to the chairman of the Department of Linguistics, College of Arts and Sciences.

## Preparation for Medical Technology

(Zoology-Medical Technology Major, major code #2123)

This program in medical technology prepares students for work in hospital laboratories, public health bureaus, and other laboratories concerned with medical diagnosis and investigation. It leads to a bachelor of science degree in zoology and certification by the American Society of Clinical Pathologists or other certifying body.

The Ohio University-hospital school of medical technology affiliation for training of medical technologists fulfills the requirements established by A.M.A. and A.S.C.P. and affords the student an opportunity to earn the bachelor's degree.

After completing (1) a minimum of 144 quarter hours with at least a 2.0 point-hour ratio in the major and in all hours attempted and (2) all area requirements for the baccalaureate degree the student is eligible to apply for admission to one of several affiliated hospital schools for the clinical program. Upon satisfactory completion of the 12-month clinical program, the student will receive the bachelor of science degree from Ohio University.

Approval may occasionally be granted for completion of the clinical program at hospitals other than those affiliated with Ohio University if such hospitals have C.A.H.E.A.-approved programs in medical technology and if, for reasons of location or other factors, this would better meet the needs of the student. A student seeking such approval is required to present a copy of the hospital's program of study to the Department of Zoology and Microbiology for evaluation. The student may enroll in this substitute program if it is approved.

The student is urged to consult his or her advisor frequently during the preclinical period. Early in the fall quarter preceding the clinical program, specific information about applying to an affiliated school of medical technology should be obtained from the medical technology advisor.

A student who transfers from another program or institution (including branch campuses of Ohio University) cannot normally expect to complete the preinternship requirements in three years unless the need to make up courses is minimal.

A student requiring financial assistance may apply for a Kellogg Foundation or other loan through the Office of Student Financial Aids and Scholarships.

Freshman	
CHEM 141 Fundamentals of Chem. ....	5
CHEM 142 Fundamentals of Chem. ....	5
CHEM 143 Quant. Analys. ....	5
English Composition .....	5
MATH 113 Algebra .....	5
OR	
MATH 163A Intro. to Calc. ** .....	4

ZOOL 150 Intro. to Zool.	6
ZOOL 151 Intro. to Zool.	6
Arts and Sciences college degree requirements and/or electives.	

\*\*Of the choices, this is recommended.

#### Sophomore

CHEM 301-302 Organic (short)	6
CHEM 325 Instr. Methods of Analys.	4
ZOOL 300 Elements of Anat. & Histology	6
ZOOL 325 Gen. Genetics	5
ZOOL 345 Human Physiology	4
Arts and Sciences college degree requirements and/or electives.	

#### Junior

English Composition	4-5
MICR 411 Gen. Microbiology	6
MICR 415 Immunology	6
ZOOL 463 Cell Chem.	4
ZOOL 464 Physiological Chem. Lab.	4
Arts and Sciences college degree requirements and/or electives.	

#### PLUS AT LEAST 15 HOURS FROM AMONG THE FOLLOWING COURSES:

MICR 412 Microbiological Tech.	4
MICR 413 Pathogenic Bacteriology	6
MICR 414 Virology	4
ZOOL 305 Histological Techn.	3
ZOOL 326 Lab. Genetics	4
ZOOL 346 Human Physiology Lab.	2
ZOOL 428 Human Genetics	3
ZOOL 441 Parasitology	6
MGT 420 Admin. of Personnel	4
CS 150 Comput. Science, Survey	3
PHYS 201-202 Intro. to Physics	4-4
IT 336 Bioelectronics	3
MATH 263A Analyt. Geom. & Calc.*	5
CHEM 351 Phys. Chem.	4
PSY 121 Elem. Stat. for Behavioral Sciences	5
CHEM 479 Radiochemistry	4
CHEM 303 Organic Chem. Lab.	1
CHEM 304 Organic Chem. Lab.	2
A total of 64 hours of medical technology coursework is taken at an affiliated hospital. A typical program includes:	
Hematology	10 hours
Bacteriology and Serology	18 hours
Parasitology	3 hours
Clinical Chemistry	23 hours
Immunohematology	5 hours
Urinalysis	4 hours
Radioisotopes	1 hour

\*Credit is not recognized for both MATH 163A and 263A

## Preparation for Medicine

Most medical colleges require the bachelor's degree for admission; all others require a minimum of three academic years.

No specific area for the major is required by medical colleges or by Ohio University in undergraduate preparation for medicine. The student must present preparation in various basic sciences, and many students do complete a major in one science or a dual major in two sciences.

For most medical schools, the requirements for admission include general chemistry; quantitative analysis; organic chemistry, including laboratory; mathematics; physics; general zoology; comparative vertebrate anatomy; and embryology. Many medical schools now require or strongly recommend at least a year of behavioral and social sciences, a year of English, and additional courses in humanities. (Refer to courses recommended to fulfill these requirements following the Zoology Major Program, code #2502.) If the student has a particular medical school in which he or she wishes to enroll the program should be planned to meet the specific requirements of that school.

All medical college applicants are required to take the Medical College Admission Test (MCAT) in spring

(preferred) or fall of the calendar year previous to the year they expect to enroll in medical college.

A student who plans to complete only three years at Ohio University before entering medical college is urged to meet requirements of the College of Arts and Sciences so as to be eligible for the degree *in absentia* privilege.

## Chemistry-Premedicine Major

(A.B. Degree)

(major code #3314)

The recommended program for premedical students majoring in chemistry is listed below. Possible options for specific items in this program may be considered in consultation with an advisor in the Department of Chemistry.

#### Freshman

CHEM 141 Fundamentals of Chem.	5
CHEM 142 Fundamentals of Chem.	5
CHEM 143 Quant. Analysis	5
English Composition	5
MATH 263A, 263B, 263C Analyt. Geom. & Calc.	15
ZOOL 150 Intro. to Zool.	6
ZOOL 151 Intro. to Zool.	6
Arts and Sciences degree requirements (including language) and/or electives.	

#### Sophomore

CHEM 305, 306, 307 Organic Chem.	9
OR	
CHEM 301 & 302** Organic Chem.	6
CHEM 308 & 309 Organic Chem. Lab.	4
OR	
CHEM 303 & 304** Organic Chem. Lab.	3
PHYS 251, 252, 253 Gen. Phys.	15
Arts and Sciences degree requirements (including language) and/or electives.	

#### Junior

CHEM 453, 454, 455 Phys. Chem.	9
OR	
CHEM 351** Phys. Chem.	4
English Composition	4-5
ZOOL 303 Compar. Vertebrate Anat.	6
ZOOL 325* Gen. Genetics	5
CHEM 325** Instr. Methods of Analys.	4
OR	
CHEM 484* Electrochem. Methods of Analys.	5
AND	
CHEM 485* Spectrochem. Analys.	5
Arts and Sciences degree requirements (including language) and/or electives.	

#### Senior

CHEM 476† Mod. Inorganic Chem.	4
ZOOL 406* Vertebrate Embryology	6
CHEM 490**†, 491**†, 492**† Intro. to Biochem.	9
Arts and Sciences degree requirements (including language) and/or electives.	

\*Desirable but not required.

\*\*Students who select these courses are reminded that a full year's work in one of these fields is required.

†Students anticipating the degree *in absentia* privilege should schedule these requirements in the junior year

## Zoology-Premedicine Major

(major code #2502)

Premedical students majoring in zoology will be required to complete the following program. Students who elect the degree *in absentia* option must complete a minimum of 36 hours in zoology/microbiology; those who elect the four-year program must complete a minimum of 45 hours in zoology/microbiology.

#### Freshman

CHEM 141 Fundamentals of Chem.	5
CHEM 142 Fundamentals of Chem.	5

CHEM 143 Quant. Analys. ....	5
English Composition .....	5
MATH 163 A-B Intro. to Calc. ....	8
OR	
MATH 263 A-B Analyt. Geom. & Calc. ....	10
ZOOL 150 and 151 Intro. to Zool. ....	12
Arts and Sciences college degree requirements and/or electives. (English and comparative arts are recommended.)	

## Sophomore

PHYS 201, 202, 203 Intro. ....	12
CHEM 301, 302 Organic (short) .....	6
OR	
CHEM 305, 306, 307 Organic (long) .....	9
ZOOL 303 Compar. Vert. Anatomy .....	6
ZOOL 325 Gen. Genetics. ....	5
Language if needed. ....	12
Recommended: PSY 121 or ISE 304	
Arts and Sciences degree requirements and/or electives in humanities and social sciences.	

## Junior

CHEM 303, 304 Organic Lab (short) .....	3
OR	
CHEM 308, 309 Organic Lab (long) .....	4
ZOOL 448* Cell Physiology (recommended, not required) .....	4
English Composition .....	5
Language if needed .....	12
Other humanities and social sciences	

## Junior-Senior

ZOOL 404 Compar. Vert. Anatomy. ....	6
ZOOL 406 Embryology .....	6
CHEM 325 Instr. Analysis .....	4
ZOOL 463 Cell Chemistry .....	4
OR	
CHEM 489 Basic Biochem .....	4
OR	
CHEM 490, 491 Intro. Biochem. ....	6
ZOOL 460* Animal Physiology .....	4

\*Either ZOOL 460 or 448 is required.

Recommended electives: MICR 411, IT 336, ZOOL 461.  
Recommended behavioral and social sciences: ANTH 355, 370;  
Sociology courses: PSY 131, 173, 332, 336.  
Recommended humanities: GK 127, philosophy, literature,  
comparative arts.

## Two-Year Program in Mental Health Technology

The College of Arts and Sciences through the Department of Social Work offers the associate in applied science degree in mental health technology.

The program prepares students for employment in the range of social service agencies, including institutions for the mentally ill and mentally retarded, community mental health clinics, residential child-care facilities, drug and alcohol abuse programs, nursing homes, and other agencies providing human service.

Because all credits earned in the program can apply to a four-year degree, students may choose to pursue the associate and bachelor's degrees simultaneously. If so, early consultation with the MHT program director is advised.

Students seeking admission to the program must obtain application forms from the MHT program director and schedule an interview.

A minimum of 97 hours is required (with a 2.0 average at graduation) to be completed in no fewer than six academic quarters.

## Freshman

ZOOL 103 Human Biol. ....	5
PSY 101 Gen. Psych. ....	5
MHT 101 Intro. to Mental Health. ....	3
	13

Humanities. ....	3
MHT 112 Helping Relationship .....	3
SOC 101 Intro. to Sociology .....	5
PSY 131 Psych. to Adjustment .....	4
	12

Humanities. ....	3
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MHT 122 Intro. to Social Casework .....	3
PSY 332 Abnormal Psych. ....	5
PSY 173 Child & Adolescent Psych. ....	5
	13

Humanities. ....	2-3
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## Sophomore

MHT 221 Practi. in Mental Health I .....	10
MHT 201 Activity Therapies. ....	3
EDUC 410 Human Relations .....	3
	16

MHT 222 Practi. in Mental Health II .....	10
EDUC 440 Foundations in Group Dynamics .....	4
SW 290 Social Welfare as an Institution .....	4
	18

MHT 223 Practi. in Mental Health III. ....	10
MHT 231 Seminar in Mental Health .....	3
SW 391 Social Security System .....	4
	17

## Preparation for Meteorology

(Geography—Meteorology Major, major code #4233)  
(Mathematics—Meteorology Major, major code #3104)  
(Physics—Meteorology Major, major code #3336)

The following program is intended to provide an interdisciplinary program in the departments of Geography, Mathematics, and Physics for students who wish to prepare themselves for training at the graduate level in the fields of meteorology, climatology, and atmospheric physics. The choice of a geography, mathematics, or physics emphasis is open to the student's choice.

## Freshman

English Composition .....	5
MATH 263A, 263B, 263C Analyt. Geom. & Calc. ....	15
GEOG 101 Elements of Physical Geog. ....	5
GEOL 101 Intro. to Geol. ....	5
CHEM 141 Fundamentals of Chem. ....	5
CHEM 142 Fundamentals of Chem. ....	5

## Sophomore

MATH 340 Differential Equations .....	5
MATH 440 Vector Analysis .....	5
MATH 441 Fourier Series & Partial Differential Equations. ....	5
GEOG 201 Environment & Man .....	4
GEOL 211 Oceanography .....	5
PHYS 251, 252, 253 Gen. Phys. ....	15
ET 240 Intro. to Comput. Solutions of Engr. Problems .....	3

## Junior

English Composition .....	4-5
GEOG 311 Meteorology. ....	5
GEOG 312 Climatology .....	5
PHYS 311, 312 Mechanics .....	8

## Senior

CHE 460 Atmospheric Pollution Control .....	3
GEOG 490C Observation Practicum. ....	3
PHYS 411 Thermodynamics .....	4

In addition, the student should select one of the three departments for specialization, contact that department for advising, and select the appropriate additional set of courses given below:



**Plan A (Emphasis in Geography)**

GEOG 130 Econ. Geog. ....	4
GEOG 260 Map Reading & Interp. ....	4
GEOG 327 Resource Mgt. & Conservation ....	4
GEOG 365 Air Photo Interp. ....	4

**Plan B (Emphasis in Mathematics)**

MATH 360 Interim. Analys. ....	5
MATH 444 Intro. to Numerical Analys. ....	5

**Plan C (Emphasis in Physics)**

PHYS 272, 273 Electronic Lab ....	4
PHYS 316 Mod. Phys. ....	3
PHYS 412 Kinetic Theory & Statistical Mechanics ....	4
OR	
PHYS 423 Optics ....	4
CE 340 Fluid Mechanics ....	5

The student must also take courses necessary to satisfy the requirements of the College of Arts and Sciences, and electives as necessary to fulfill the University hours requirement. Recommended electives are: MATH 450A,B; ET 325, 326; ECON 101, 102, 313; and GEOL 359, 407, 464, 480, 481, 482.

**Preparation for Optometry**

(Zoology—Preoptometry Major, major code #2505)

The requirements for admission to schools of optometry are not uniform. A minimum of 90 hours exclusive of military science and physical education is required. The following curriculum will meet the admission requirements for a collegiate program and consequently of most independent schools of optometry. The student planning to earn the degree *in absentia* must complete at least 144 hours including all Arts and Sciences degree requirements and the program outlined below.

**Freshman**

CHEM 141 Fundamentals of Chem. ....	5
CHEM 142 Fundamentals of Chem. ....	5
CHEM 143 Quant. Analys. ....	5
English Composition ....	5
MATH 263A Analyt. Geom. & Calc. ....	5
MATH 263B Analyt. Geom. & Calc. * ....	5
ZOOL 150 Intro. to Zool. ....	6
ZOOL 151 Intro. to Zool. ....	6
Arts and Sciences college degree requirements and/or electives.	

\*Suggested, not required

**Sophomore**

CHEM 301-302 Organic (short) ....	6
CHEM 303-304 Organic Lab. ....	3
PSY 101 Gen. ....	5
ZOOL 303 Compar. Vertebrate Anat. ....	6
ZOOL 325 Gen. Genetics ....	5
Arts and Sciences college degree requirements and/or electives.	

**Junior**

English Composition ....	4-5
PHYS 201-202-203 Intro. ....	12
ZOOL 345 Human Physiology. ....	4
OR	
ZOOL 460 Animal Physiology ....	5
Arts and Sciences college degree requirements and/or electives.	
PLUS AT LEAST 10 HOURS FROM AMONG THE FOLLOWING COURSES:	
MICR 411 Gen. ....	6
ZOOL 404 Compar. Vertebrate Anat. (Mammalian) ....	6
ZOOL 406 Vertebrate Embryology ....	6
ZOOL 408 Histology ....	6
ZOOL 448 Cell Physiology ....	4
ZOOL 463 Cell Chem. ....	4

The student should consult the departmental advisor and the dean of the college regarding the program for the fourth year

Further information relative to requirements and the profession of optometry may be obtained by writing to the American Optometric Association, Department of Public Information, 700 Chippewa Street, St. Louis, Missouri 63319.

**Preparation for Pharmacy**

(Zoology-Prepharmacy Major, major code #2506)  
(Chemistry-Prepharmacy Major, major code #3313)

Most schools of pharmacy require 90 quarter hours of academic credit, exclusive of physical education and military science, for admission. The following general program will meet the requirements of most schools. There is no *in absentia* arrangement for pharmacy.

**Freshman**

CHEM 141 Fundamentals of Chem. ....	5
CHEM 142 Fundamentals of Chem. ....	5
CHEM 143 Quant. Analys. ....	5
English Composition ....	5
MATH 163A-B Intro. to Calc. ....	8
OR	
MATH 263A-B Analyt. Geom. & Calc. ....	5-5
ZOOL 150-151 Intro. to Zool. ....	12
Arts and Sciences college degree requirements and/or electives.	

**Sophomore**

CHEM 305-306-307 Organic (long) ....	9
CHEM 308-309 Organic Lab. ....	4
ECON 101 Princ. ....	4
PHYS 201-202-203 Intro. ....	12
QM 200 Intro. Bus. Data Proc. ....	4
QM 201 Stat. ....	4
ZOOL 300 Elements of Anat. ....	6
Arts and Sciences college degree requirements and/or electives.	

The student may complete this program plus the additional requirements for the A.B. or B.S. degree with a major in zoology or chemistry.

Since some pharmacy schools require additional courses not listed here, a student wishing to go to a specific school should write to the school of his or her choice for additional requirements as soon as possible.

**Preparation for Physical Therapy**

(Zoology-Prephysical Therapy Major, major code #2507)

The following programs extending over a period of two, three, or four years at Ohio University are recommended to students who wish to enter physical therapy. **NOTE:** Those prephysical therapy students who plan to apply for admission to the physical therapy program at Cleveland State University are required to take two of the following five courses at Ohio University: genetics, vertebrate embryology, microbiology, histology, cell physiology.

Some professional schools of physical therapy require that each applicant take the Allied Health Admissions Test in the fall or winter of the calendar year prior to the year of expected admission to a physical therapy program. Each student will be responsible for determining whether this is a requirement of the selected school(s).

**Plan A:** After completing (1) a minimum of 144 quarter hours including the entire Plan A curriculum with at least a 2.0 point-hour ratio in the major and in all hours attempted and (2) all area requirements for the baccalaureate degree, the student may apply for admission to an accredited school of physical therapy. Upon satisfactory completion of 12 months of professional training in physical therapy the student will receive the bachelor of

science degree in *absentia* from Ohio University with a major in zoology. At present Ohio University is affiliated with The Mayo Clinic and Northwestern University in this degree in *absentia* program.

**Plan B:** The student may elect to transfer to an accredited school of physical therapy and not complete the degree requirements at Ohio University. If this option is elected it is suggested that the transfer be made no later than the end of the sophomore year, and the student's academic program while at Ohio University should essentially follow that of Plan A. Care should be taken to fulfill all special admission requirements established by the school to which the student is transferring.

Those students planning to apply to the physical therapy program at Cleveland State University are required to take, in addition to the courses listed in Plan B, two of the following five courses and to earn at least a C average, or better, before they will be eligible for admission to the Cleveland State University program:

ZOOL 448 (cell physiology); ZOOL 325 (genetics); ZOOL 408 (histology); ZOOL 406 (vertebrate embryology); and MICR 411 (microbiology).

**Plans C and D:** A student may elect to pursue a career in physical therapy after completing a four-year bachelor's degree program at Ohio University majoring in either zoology (Plan C) or psychology (Plan D). It is recommended that such students follow one of the baccalaureate programs given below and apply for entrance to a certificate program in an accredited school of physical therapy to commence after graduation from Ohio University.

**Plans A or B:** Three-year degree in *absentia* and transfer program. The following courses are required:

Freshman	
CHEM 121-122-123 Principles of Chem. ....	12
ENG 172 Comp. ....	5
MATH 113 Algebra. ....	5
OR	
MATH 163A Intro. to Calc. ....	4
PSY 101 Gen. ....	5
PSY 121 Elem. Stat. for the Behavioral Sciences. ....	5
ZOOL 150-151 Intro. to Zool. ....	12
Arts and sciences college degree requirements and/or electives.	

Sophomore	
HPER 202 Personal & Community Health. ....	3
PSY 173 Child & Adolescent. ....	5
PHYS 201-202 Intro. ....	8
SOC 101 or 302 Prin. ....	5
ZOOL 301 Human Anat. ....	6
ZOOL 345 Human Physiology. ....	4
ZOOL 346 Human Physiology Lab. ....	2
ZOOL 352 Kinesiology. ....	4
Arts and Sciences college degree requirements and/or electives.	

Junior	
English composition. ....	4-5
HPER 329C Athletic Training. ....	2
ZOOL 445 Physiology of Exercise. ....	4
ZOOL 446 Physiology of Exercise Lab. ....	2
Zool Elective. ....	3
Arts and Sciences college degree requirements and/or electives.	
Students who elect the degree in <i>absentia</i> option (Plan A) must complete a minimum of 36 hours in zoology/microbiology.	

Senior	
To be completed at an accredited school of physical therapy. The following courses are suggested to be used to supplement the major or serve as electives:	
GK 127 Greek Words in Engl. ....	3
HPER 420 Adv. Athletic Training. ....	4

HSS 108 Intro. to Speech Disorders. ....	3
OR	
HSS 336 Speech & Hearing Disorders in Pub. School. ....	3-4
HSS 424 Neuropathologies of Speech & Lang. ....	3-4
PSY 275 Educ. ....	5
PSY 332 Abnormal. ....	5
PSY 131 Psych. of Adjustment. ....	4
ZOOL 303 Compar. Vertebrate Anat. ....	6
ZOOL 325 Gen. Genetics. ....	5
ZOOL 460 Animal Physiology. ....	5
ZOOL 479 Evolution. ....	4
ZOOL 406 Vertebrate Embryology. ....	6

**Plan C:** Four-year B.S. in zoology program. The following courses are required:

Freshman	
CHEM 121-122-123 Principles of Chem. ....	12
ENG 172 Comp. ....	5
MATH 113 Algebra. ....	5
OR	
MATH 163A Intro. to Calc. ....	4
PSY 101 Gen. ....	5
PSY 121 Elem. Stat. for the Behavioral Sciences. ....	5
ZOOL 150-151 Intro. to Zool. ....	12
Arts and Sciences college degree requirements and/or electives.	

Sophomore	
HPER 202 Personal & Community Health. ....	4
PHYS 201-202 Intro. ....	8
SOC 101 or 302 Prin. ....	5
ZOOL 301 Human Anat. ....	6
ZOOL 345 Human Physiology. ....	4
ZOOL 346 Human Physiology Lab. ....	2
ZOOL 352 Kinesiology. ....	4
Arts and Sciences college degree requirements and/or electives.	

Junior	
English Composition. ....	4-5
HPER 329C Athletic Training. ....	2
PSY 173 Child & Adolescent. ....	5
ZOOL 303 Compar. Vertebrate Anat. ....	6
ZOOL 325 Gen. Genetics. ....	5
Arts and Sciences college degree requirements and/or electives.	

Senior	
ZOOL 445 Physiology of Exercise. ....	4
ZOOL 446 Physiology of Exercise Lab. ....	2
Students who complete the four-year program must complete a minimum of 45 hours in zoology/microbiology.	
Arts and Sciences college degree requirements and/or electives.	

The following are suggested courses to be used to supplement the major or serve as electives:

GK 127 Greek Words in Engl. ....	3
HPER 420 Adv. Athletic Training. ....	4
HSS 108 Intro. to Speech Disorders. ....	3
OR	
HSS 336 Speech & Hearing Disorders in Pub. Schools. ....	3-4
HSS 424 Neuropathologies of Speech & Lang. ....	3-4
PSY 131 Psych. of Adjustment. ....	4
PSY 275 Educ. ....	5
PSY 332 Abnormal. ....	5
ZOOL 404 Compar. Vertebrate Anat. ....	6
ZOOL 460 Animal Physiology. ....	5
ZOOL 479 Evolution. ....	4

**Plan D:** Four-year A.B. in psychology program. The following courses are required:

Freshman	
CHEM 121-122-123 Principles of Chem. ....	12
ENG 172 Contemp. Wrting. Skills. ....	5
MATH 113 Algebra. ....	5
OR	
MATH 163A Intro. to Calc. ....	4
PSY 101 Gen. ....	5
ZOOL 150-151 Intro. to Zool. ....	12
Arts and Sciences college degree requirements and/or electives.	

Sophomore	
PHYS 201-202 Intro. ....	8
PSY 121 Elem. Stat. for Behavioral Sciences.....	5
PSY 226 Experimental Psych. ....	5
PSY 173 Child & Adolescent .....	5
SOC 101 or 302 Prin. ....	5
ZOOL 301 Human Anat. ....	6
ZOOL 345 Human Physiology.....	4
ZOOL 346 Human Physiology Lab .....	2
ZOOL 352 Kinesiology .....	4
Arts and Sciences college degree requirements and/or electives.	
Junior	
English Composition .....	4-5
HPER 329C Athletic Training .....	2
PSY 131 Psych. of Adjustment .....	4
PSY 241 Behavioral Measurement .....	5
PSY 303 Learning.....	5
OR	
PSY 304 Human Learning.....	5
Arts and Sciences college degree requirements and/or electives.	
Senior	
HPER 202 Personal & Community Health .....	4
PSY 310 Motivations .....	5
OR	
PSY 336 Social .....	5
OR	
PSY 351 Clinical & Counseling .....	5
PSY 312 Physiological Psych. ....	5
PSY 332 Abnormal.....	5
OR	
PSY 333 Psych. of Personality I. ....	5
PSY 376 Psych. of Exceptional Child .....	5
ZOOL 445 Physiology of Exercise .....	4
ZOOL 446 Physiology of Exercise Lab .....	2
Arts and Sciences college degree requirements and/or electives.	
The following are suggested electives:	
GK 127 Greek Words in Engl. ....	3
ZOOL 108 Intro. to Speech Disorders .....	3
OR	
HSS 336 Speech & Hearing Disorders in Public Schools .....	3-4
HSS 424 Neuropathologies of Speech & Lang. ....	3-4
ZOOL 404 Compar. Vertebrate Anat. ....	6
ZOOL 460 Animal Physiology .....	5
ZOOL 479 Evolution.....	4

### Preparation for Theology and Religion

(English—Pretheology Major, major code #5233)

(History—Pretheology Major, major code #4213)

(Philosophy—Pretheology Major, major code #5242)

It is recommended that a student planning to enter a theological seminary or to do graduate study in religion take a broad program of undergraduate courses including the following (with minimal quarter hours of credit suggested in each area): philosophy (12); Bible and history of religions (15); English composition and literature, and world literature (21); history, including HIST 354 (15); social sciences (21); foreign languages (18, preferably in Greek, Latin, French, or German); natural sciences (9); public speaking (3). The course program should be arranged to meet the requirements of the bachelor of arts degree. It is advisable to major in philosophy, English, or one of the social sciences. The student should also check the entrance requirements of the theological seminary or graduate school of his or her choice and plan his or her course accordingly.

### Preparation for Urban and Regional Planning

(Geography—Urban Planning Major, major code #4234)

This special curriculum is designed to provide some of the basic academic requirements for students considering careers in urban planning in the United States. While working towards a conventional bachelor of science

degree in geography, students take certain required courses and select from an approved list of electives both inside and outside the Department of Geography which emphasize legal, social, political, and historical aspects of the planning profession. These courses simultaneously fulfill some of the department and college requirements. The distinctiveness of the curriculum comes from the direction given the student and the preselection of courses in which the student may enroll which separates this special curriculum from the general geography program. Students entering the course of study must abide by the regulations of the College of Arts and Sciences pertaining to undergraduate degrees. These include a minimum of 192 credit hours; requirements concerning the geography major, English composition, foreign language; level of study and area requirements concerning the geography major, English composition, foreign language; level of study and area requirements in humanities, social sciences, and natural sciences. Students wishing to enroll in the preparation for urban and regional planning should contact the chairman of the Department of Geography as soon as possible, preferably not later than the beginning of their sophomore year.

The majority of job opportunities for planners are with government agencies at the local, state, and federal levels. Their activities largely concern administration and implementation of federal programs and continued funding depends upon the Congress. Whereas a bachelor's degree can facilitate initial entry into the planning profession, job descriptions usually specify a master's degree and it is recommended that students continue towards such a degree, involving an additional two years of study, offered by over 70 American universities.

### Core Curriculum (49 credit hours)

#### Geography (24 hours):

GEOG 230 Intro. to Urban Geog. ....	4
GEOG 360 Cartography & Graphics.....	4
GEOG 420 Land Use Planning .....	4
GEOG 429 Settlement Geog. ....	4
GEOG 430 Adv. Urban Geog. ....	4
GEOG 477 Quant. Methods .....	4

#### Other Departments (25 credit hours):

These courses concurrently fulfill the social science area requirement of the College of Arts and Sciences.

ECON 101 Principles .....	4
ECON 102 Principles .....	4
ECON 310 Urban Econ. ....	4
POLS 320 Urban Politics.....	5
SOC 424 Urban Soc. ....	4
MGT 300 Mgt. ....	4

#### Additional Courses to Fulfill the Geography Major Requirement (26 credit hours):

Combine with courses in the core curriculum for a total of 50 credit hours.

GEOG 101 Intro. to Phys. Geog. ....	5
GEOG 121 Elements of Cultural Geog. ....	4
GEOG 130 Econ. Geog. ....	4
GEOG 312 Climate .....	5
GEOG 470 Devel. of Geog. Thought .....	4
One course from GEOG 201, 321, 325, 327, 422, and 429	

### Additional Courses to Fulfill Area Requirements of the College of Arts and Sciences\*

**Foreign Language Requirement (24 credit hours)** The language requirement is the same as for all other B.S. degree programs in the College of Arts and Sciences.

\*The student and the advisor should devise a plan which accounts for the Tier I and Tier II General Education requirements

**Humanities Area Requirement** (18 credit hours) These requirements are the same as for all other B.S. degree programs in the College of Arts and Sciences. The student is advised to select CA 350 Principles of Architecture (3) and CA 354 19th and 20th Century Architecture (3) in partial fulfillment of the Arts and Sciences humanities area requirement.

**Natural Science Area Requirement** (18 credit hours) This requirement is the same as that for all other B.S. degree programs in the College of Arts and Sciences. One or more of the following courses are recommended as partial fulfillment of the requirement:

GEOL 101 Intro. to Geol. ....	5
GEOL 330 Prin. of Geomorphology ....	5
GEOL 432 Origin & Classification of Soils ....	4

### Restricted Electives

Completion of the above requirements leaves 57 credit hours to be taken to fulfill the 192 credit hours necessary for graduation. A minimum of 48 of these hours must be taken from among the following:

#### Within the College of Arts and Sciences

Any Geography Department courses EXCEPT GEOG 140, 141, and 142	
BUSL 370 Environ. Law ....	4
BUSL 422 Law of Property & Real Estate ....	4
ECON 213 Current Econ. Prob. ....	4
ECON 260 Money & Banking ....	4
ECON 301 Intro. to Econ. Analys. ....	4
ECON 302 Intro. to Econ. Analys. ....	4
ECON 303 Microeconomics ....	4
ECON 304 Macroeconomics ....	4
ECON 356 Regional Devel. ....	4
HIST 317A Ohio Hist. to 1851 ....	4
HIST 317B Ohio Hist. since 1851 ....	4
POLS 101 American Nat. Govt. ....	4
POLS 102 Issues in American Politics ....	4
POLS 408 Urban Pub. Admin. ....	4
POLS 410 Pub. Policy ....	4
POLS 424 Intergovernmental Relations ....	4
SW 101 Intro. to Soc. Welfare and Soc. Work ....	3
SW 290 Soc. Welfare as an Institution ....	4
SW 391 Soc. Sec. System ....	4
SW 392 Contemp. Am. Soc. Services ....	4
SW 395 Aging in the Welfare State ....	4
SOC 101 Intro. to Soc. ....	5
SOC 201 Contemp. Social Prob. ....	4
SOC 230 Soc. of Poverty ....	4
SOC 425 Rural Soc. ....	4

#### Outside the College of Arts and Sciences

CE 361 Transportation & Engineering ....	4
INCO 205 Group Discussions ....	4
INCO 404 Prin. & Tech. of Interviewing ....	4
RET 101 Real Estate Prin. & Prac. I. ....	4
RET 102 Real Estate Appraising ....	4
RET 204 Real Estate Fin. ....	4
HPER 310C Prog. Planning & Facil. for Recreation ....	5

### Preparation for Veterinary Medicine

(Zoology—Preveterinary Medicine Major, major code #2508)

Most schools of veterinary medicine require a bachelor's degree for admission. The Veterinary Aptitude Test must be taken during the calendar year previous to the year in which the student expects to enroll in veterinary school.

The practice of most schools of veterinary medicine is to admit only residents of the state in which the schools are located. Exceptions to this generally are by contractual agreement with states which have no schools of veterinary medicine. Early in his or her college career the

preveterinary medicine student should identify the schools to which he or she might be eligible for admission and become familiar with the specific entrance requirements of those schools.

The student should bear in mind that admission to a school of veterinary medicine is highly competitive and that successful applicants not only have achieved outstanding, well-rounded academic records but also have presented a demonstrable genuine interest in the profession of veterinary medicine.

Preveterinary medicine students majoring in zoology will be required to complete the following program, which must include at least 45 hours of zoology/microbiology coursework. Additional selections from the recommended electives listed after the junior-senior program are encouraged.

#### Freshman

CHEM 141 Fundamentals of Chem. ....	5
CHEM 142 Fundamentals of Chem. ....	5
CHEM 143 Quant. Analys. ....	5
ENG 172 Comp. ....	5
MATH 163A-B Intro. to Calc.* ....	8
OR	
MATH 263A-B Analyt. Geom. & Calc. ....	10
ZOOL 150 Intro. to Zool. ....	6
ZOOL 151 Intro. to Zool. ....	6
Arts and Sciences college degree requirements and/or electives.	

\*Of the choices, this is recommended.

#### Sophomore

CHEM 301-302 Organic (short). ....	6
CHEM 303-304 Organic Lab. ....	3
PHYS 201-202-203 Intro. ....	12
ZOOL 303 Compar. Vertebrate Anat. ....	6
ZOOL 325 Gen. Genetics. ....	5
Arts and Sciences college degree requirements and/or electives.	

#### Junior-Senior

English Composition ....	4-5
MICR 411 Gen. Microbiol. ....	6
ZOOL 460 Animal Physiology ....	5
ZOOL 461 Animal Physiology Lab. ....	4
Arts and Sciences college degree requirements and/or electives.	

#### Recommended electives:

MICR 415 Immunology ....	6
ZOOL 404 Compar. Vertebrate Anat.—Mammalian ....	6
ZOOL 406 Vertebrate Embryology ....	6
ZOOL 441 Parasitology ....	6
ZOOL 463 Cell Chem. ....	4

OR

CHEM 490 and 491 Intro. to Biochem. .... 6  
Students who elect the degree in *absentia* option must complete a minimum of 36 hours in zoology/microbiology. Students who complete the four-year program must complete a minimum of 45 hours in zoology.

### Women's Studies Certificate Program

This program is available as an option in any baccalaureate degree program offered by the University, regardless of the college in which the student is enrolled.

The requirements for the certificate are WS 100 Introduction to Women's Studies, 22 additional quarter hours earned in classes on the designated core list below and WS 400.

AAS 461 Lit. Seminar: Black Women Authors ....	5
AAS 482 Black Family ....	5
ANTH 358 Women: Cross-Cultural Survey ....	4
ENG 171D Man & Woman ....	5
HIST 314 Women in American Hist. ....	4
HIST 360 Women in European Hist. ....	4
LING 390 Language of Women & Men ....	3
POLS 420 Women, Law & Politics ....	4
POLS 478 Feminist Political Thought ....	4
SOC 220 Intro. to the Family ....	4

SOC 370 Sex Roles & Inequality .....	4
SOC 421 Comparative Studies of Family .....	4
ZOOL 103 Human Biol. ....	5
OR	
ZOOL 391 Biol. of Human Sexuality .....	4

Additional courses are currently being developed. Experimental courses and certain English courses will also count as core courses under appropriate conditions. The student should see the women's studies course coordinator for additional information on the core courses. The women's studies certificate is awarded upon graduation from Ohio University and the award is recorded on the permanent record (transcript). Students seeking the certificate must consult the course coordinator prior to the deadline for application for graduation to insure that the certificate will be awarded.

### Preparation for Water Resources

(Geology—Water Resources Major, major code #3322)

This curriculum is recommended for students who wish to specialize in the investigation of surface water and groundwater supplies. The student entering the program majors in geology as a B.S. degree candidate, and takes additional coursework in mathematics, chemistry, physics, and civil engineering. Graduates of the program are qualified to seek professional employment in hydrogeology or to enter graduate school for additional training.

Students should enter the program as freshmen in order to complete the required curriculum in four years.

#### Freshman

English Composition .....	5
GEOL 101 Intro to Geol. ....	5
GEOL 330 Prin. of Geomorphology .....	5
CHEM 141 Fundamentals of Chem. ....	5
CHEM 142 Fundamentals of Chem. ....	5
CHEM 143 Quant. Analysis .....	5
MATH 263A, 263B, 263C Analyt. Geom. & Calc. ....	15
Arts and Sciences degree requirements (including language) and/or electives.	

#### Sophomore

MATH 340 Diff. Equations. ....	5
GEOL 310 Rocks & Minerals .....	5
GEOL 350 Stratigraphy-Sedimentology .....	4
PHYS 251, 252, 253 Gen. Phys. ....	15
Arts and Sciences degree requirements (including language) and/or electives.	

#### Junior

English Composition .....	4-5
GEOL 362* Geodynamics. Earth's Interior .....	3
GEOL 360 Struct. Geol. ....	4
GEOL 480 Hydrogeology (I) .....	4
GEOL 481 Hydrogeology (II) .....	4
CE 220 Statics .....	4
ME 224 Dynamics .....	4
GEOL 483 (6) to be taken during the summer of the third year	
Arts and Sciences degree requirements (including language) and/or electives	

#### Senior

CE 340 Fluid Mechanics .....	5
GEOL 476 Subsurface Methods .....	4
GEOL 482 Groundwater .....	4
CS 253 Intro to Dig. Comput. Programming for Engr. & Phys. Sciences .....	5
GEOL 485* Appld. Geophysics .....	4
CE 343 Hydrology .....	4
Arts and Sciences degree requirements (including language) and/or electives	
Additional coursework in civil engineering (415, 450, 451, 452), botany (101, H101, 102, 103, 311), zoology and micro-	

biology (211, 212, H390), and economics is recommended as elective courses to be taken in the senior year.

\*Either GEOL 362 or GEOL 485 may be taken to fulfill the major requirements.

### Preparation for Zoology-Nutrition

(Zoology/Nutrition Major, major code #2510)

(Human Nutrition and Food Science, School of Home Economics, College of Health and Human Services, Option D, Nutrition-Zoology)

This program provides a basis for those students desiring graduate study and research in nutrition and/or zoology. Certain other preprofessional undergraduates, such as pre-meds, with a strong interest in nutrition, will find the program satisfies requirements for admittance to professional schools. The program also meets American Dietetic Association academic requirements for the clinical area of specialization and qualifies students for dietetic internships with a clinical emphasis.

The course sequence should be adhered to closely and always in consultation with an advisor assigned to the student either in the Department of Zoology or in the School of Home Economics.

Should a student choose, he or she can major in the Department of Zoology and Microbiology, College of Arts and Sciences; or the same program may be pursued leading to a major in the School of Home Economics, College of Health and Human Services (see listing under Option D, Nutrition-Zoology, Human Nutrition and Food Science, School of Home Economics, College of Health and Human Services).

#### Freshman

BOT 111 Intro to Bot. ....	6
CHEM 141-142 Fundamentals of Chem. ....	10
CHEM 143 Quant. Analysis .....	5
HEFN 128 Intro. to Nutrition .....	4
HEFN 222 Food Science Principles .....	4
ZOOL 150-151 Intro. to Zool. ....	12
English Composition .....	5
PSY 101 Intro. to Psychology .....	5
MATH 163A-163B Intro. to Calculus .....	8
Arts and Sciences College degree requirements and/or electives.	

#### Sophomore

CHEM 301-302 Organic Chem. ....	6
PHYS 201-202 Intro. to Physics .....	8
ECON 101-102 Intro. to Econ. ....	8
PSY 121 Statistics .....	5
PSY 275 Educational Psych. ....	5
HEFN 299 Soph. Practi.-Prof. Assessment .....	2-5
HECF 160 Intro. to Child Develop. ....	4
OR	
HECF 371 Family Develop. ....	4
ZOOL 325 Genetics .....	5
CS 201 Computer Science .....	5
Arts and Sciences College degree requirements and/or electives.	

#### Junior

ZOOL 463 Cell Chem. ....	4
ZOOL 464 Physiological Chem. Lab. ....	3
ZOOL 482D Mammalian Physiology .....	6
ZOOL 303 Comp. Vert. Anat. ....	6
MICR 411 General Microbiology .....	6
OR	
MICR 211-212 Environmental Micr. ....	6
HEFN 399 Jr. Practi.-Prof. Assessment .....	2-5
HEFN 429 Community Nutrition .....	3
MGT 300 Intro. to Management .....	4
INCO 101 Fundamentals of Speech .....	4
OR	
INCO 103 Public Speaking .....	3
English Composition .....	5
Arts and Sciences College degree requirements and/or electives.	

## Senior

HEFN 400 Sr. Seminar.....	1
HEFN 422 Experimental Foods.....	4
HEFN 428 Adv. Nutrition.....	4
HEFN 431 Studies of Science of Nutrition.....	4
HEFN 430 Therapeutic Nutrition.....	4
HEFN 499 Field Experience.....	5-12
SOC 101 Intro. to Sociology.....	5

OR

SOC 301 Principles of Sociology.....	5
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Arts and Sciences College degree requirements and/or electives.

Students majoring in zoology must fulfill Arts and Sciences degree requirements including a language (Spanish is recommended for this program).

Students pursuing this program in the School of Home Economics should see the listing under the College of Health and Human Services for specific degree requirements in that college.

Additional suggested courses include:

HEFN 120 Meal Management.....	3
HEFN 423 Food Preservation.....	4
HEFN 426 World View of Nutrition.....	3
HEFN 334 Quantity Food Production.....	4
MICRO 417 Adv. General Microbiology.....	6

## Possible Course Sequence for Zoology-Nutrition Program

## Freshman

CHEM 141.....	5	CHEM 142.....	5	CHEM 143.....	5
HEFN 128.....	4	HEFN 222.....	4	ZOOL 151.....	6
PSY 101.....	5	ZOOL 150.....	6	MATH 163B....	4
English		MATH 163A....	4		
Composition..	5				

## Sophomore

CHEM 301.....	3	CHEM 302.....	3	HEFN 200.....	3
PSY 121.....	5	PSY 275.....	5	ZOOL 325.....	5
HECF 160/371..	4	PHYS 201.....	4	PHYS 202.....	4
Comp. Sci.....	5	ECON 101.....	4	ECON 102.....	4

## Junior

ZOOL 463.....	4	ZOOL 482D ...	3	ZOOL 482D ...	3
ZOOL 464.....	3	ZOOL 411.....	6	ZOOL 303.....	6
HEFN 399.....	2-5	MGT 300.....	4	HEFN 429.....	3
INCO 101/103	3-4	Electives.....	4	English	
Electives.....	0-4			Composition..	5

## Senior

HEFN 428.....	4	HEFN 430.....	4	HEFN 422.....	4
HEFN 431.....	3	Electives.....	12	Electives.....	12
HEFN 400.....	1				
SOC 101/301 ..	5				
Electives.....	4				



# College of Business Administration

Gerald Silver, *Dean*

Herschel R. McNabb, *Assistant Dean*

The College of Business Administration seeks to prepare men and women for professional careers in business, government, and nonprofit organizations. Consistent with its purpose, the college provides a base of liberal education needed by all educated persons in our society; business-oriented instruction in professional fields; and a close association with other colleges so as to promote knowledge and understanding from a variety of sources.

Business instruction and research center around three themes: preparation of the manager for a variety of business activities; development of analytical skills; and fostering a critical awareness of the social, political, and economic environment in which decisions will be made.

The academic departments (Accounting and Quantitative Methods, Administrative Sciences, Management) offer major fields of study in accounting, business law, computer systems in business, finance, general business, management, health care management, personnel and industrial relations, marketing, production management, and quantitative methods. Also available is a major in business economics.

In addition, the Center for Business Enterprise, Center for Court Administration, Center for Leadership Studies, and the Institute for Systems Analysis provide both educational programs for external organizations and opportunities for students and faculty to engage in meaningful projects.

The College of Business Administration has been a fully accredited member of the American Assembly of Collegiate Schools of Business since 1950.

## BACHELOR OF BUSINESS ADMINISTRATION

A candidate for the bachelor of business administration (B.B.A.) degree must complete the University's general education requirements for graduation, the English composition requirements, and fulfill a minimum of 192 quarter hours credit with a point-hour ratio of 2.0 (C) average on all hours attempted. This 2.0 (C) point-hour requirement applies to the record on courses taken in this

college, and also to courses in the student's major. The College of Business Administration limits transfer credit for required business courses taken at a lower division level to such courses as it offers at that lower level. Other transfer credits accepted by the University are evaluated as either business or nonbusiness electives.

Courses included in the 192 hour minimum for the B.B.A. degree must be chosen so that at least 77 quarter hours are earned in areas of business and economics and at least 77 quarter hours are earned in nonbusiness areas. However, eight hours of economics principles may be counted in either minimum. Among the nonbusiness courses, at least six quarter hours must be distributed in each of four broad areas: humanities, mathematics, natural science, and social science. Only three quarter hours of activity-type courses in the area of health, physical education, and recreation are acceptable within the 192 hours of credit toward the B.B.A. degree; no credit is allowed for ROTC summer camp. A minimum of 48 credit hours must be completed after admission to the college in order to meet the college's residency requirement.

## ENROLLMENT POLICIES

Freshmen entering Ohio University may receive direct entry into a major program of the College of Business Administration if they have graduated in the top one-half of their high school class. Students in the lower one-half of their high school class must achieve a minimum cumulative grade-point average of 2.25 and earn a minimum of 48 hours credit, including two courses in mathematics higher than MATH 101, in order to qualify for admission to a major program in the College of Business Administration. (MATH 163A and 163B, or their equivalent, are required of all business students with MATH 163B being a prerequisite for QM 200.) Students in the lower half of their high school class will be classified as prebusiness majors and will be assigned faculty advisors in the College of Business Administration.

Ohio University students in other colleges within the University transferring to the College of Business Administration must achieve a minimum cumulative grade-point average of 2.25 and earn a minimum of 48 quarter hours

credit, including two courses in mathematics higher than MATH 101 in order to qualify for admission to a major program in the College of Business Administration. (MATH 163A and 163B, or their equivalent, are required of all business students with MATH 163B being a prerequisite for QM 200.)

Students transferring from other institutions of higher education may be admitted to the College of Business Administration if they have a minimum cumulative grade-point average of 2.5 (on a 4.00 basis) on all college work attempted, have earned a minimum of 48 quarter hours of credit, and have credit for two courses in mathematics higher than MATH 101. (MATH 163A and 163B, or their equivalent, are required of all business students with MATH 163B being a prerequisite for QM 200.)

## CURRICULUM

All candidates for the B.B.A. degree must complete a core of courses covering a common body of knowledge in the tools of analysis and the operational fields of business plus concentration in a major area. Only a few core courses may be taken, as indicated below, during the freshman and sophomore years. This permits the student (a) to acquire an early foundation in the basic arts and sciences before specializing in business during the junior and senior years; and (b) the flexibility to choose alternative fields of study in cases of interest change. The recommended sequencing of courses is:

Freshman	
ECON 101, 102, Prin.....	8
MATH 163A-163B Intro. to Calculus.....	8
Humanities (minimum).....	6
Natural Sciences (minimum).....	6
Social Sciences (minimum).....	6
Electives.....	14
Sophomore	
ACCT 101-102 Managerial Acct.....	8
BUSL 255 Law & Society.....	4
QM 200 Intro. to Business Data Analys.....	4
QM 201 Intro. to Probabilities & Stat.....	4
Electives.....	28
Junior	
BA 310 Production Management.....	4
ECON 305 Managerial Econ.....	4
FIN 325 Managerial Finance.....	4
MGT 300 Management.....	4
MGT 325 Comm. Behavior in Mod. Organization.....	4
MKT 301 Marketing Principles.....	4
Major Courses & Electives.....	24
Senior	
BA 470 Administrative Policy.....	4
Major Courses & Electives.....	44

## MAJOR — AREA OF CONCENTRATION

Each candidate for the B.B.A. degree must designate a major or area of concentration and complete the courses required by the department offering that major. The majors are listed below by department. The course requirements for majors are indicated in this section.

Department of Accounting and Quantitative Methods	
Accounting	
Computer Systems in Business	
Quantitative Methods	
Department of Administrative Sciences	
Finance	
General Business (see Business Administration in the	

### Courses of Instruction section)

Marketing

Production Management

Department of Economics

(College of Arts and Sciences)

Business Economics

Department of Management

Business Prelaw

Health Care Management

Management

Personnel and Industrial Relations

NOTE: For pass/fail option, see the *Guidelines and General Information* section of this bulletin.

## The Accounting Major

The curriculum for accounting majors is designed to give the students a broad understanding of basic business fundamentals plus an opportunity to concentrate in one or more special fields of accounting. The students also have the opportunity to broaden both their interests and their nontechnical knowledge and skills by taking courses from faculty from many different departments of the University. At least 40 percent of the degree requirements must be taken from divisions and departments other than the College of Business Administration and Department of Economics.

The accounting major is given an opportunity to study general accounting theory and, in addition, may specialize in managerial accounting (controllship), public accounting (CPA), tax accounting (private practice or with the IRS), governmental accounting, industrial/cost accounting, or institutional accounting. As an alternative to securing direct entry into an accounting position upon graduation, some students major in accounting for a good, solid background education. Accounting has proven to be an excellent foundation for advancement to top executive positions for many graduates.

The special needs of an accounting major can be selectively chosen from the following list of courses, or by properly selecting the electives, the student may prepare himself or herself for a variety of interesting and challenging positions other than accounting. The advisor can help select the necessary elective courses which will allow specialization or broadening of the field of interest.

There are scholarships and achievement awards available from several sources. The Accounting Department awards scholarships to entering freshmen who have evidenced good potential for accounting ability, based on their high school records and test scores. In addition, the department grants achievement awards to those students who excel in gaining technical knowledge in accounting. These are based on merit alone; need is not a factor. All of these departmental awards are in addition to those that the University and the College of Business Administration have available each year to accounting and other majors.

## Suggested Course Sequence

Freshman	
MATH 163A Calculus.....	4
MATH 163B Calculus.....	4
ECON 101 Prin.....	4
ECON 102 Prin.....	4
ACCT 101 Managerial.....	4
ACCT 102 Managerial.....	4
English, plus another humanities course	
Natural science, 2 courses	
Electives*, 2 courses	

## Sophomore

ACCT 217 Taxation.....	4
ACCT 310 Cost.....	4
ACCT 303 Intern.....	4
QM 200 Stat.....	4
QM 201 Stat.....	4
BUSL 225 Law & Society.....	4
Social science. 1 course	
Electives*, 5 courses	

## Junior

ACCT 304 Intern.....	4
ACCT 305 Intern.....	4
ACCT 345** Systems.....	4
MGT 300 Prin.....	4
ECON 305 Managerial.....	4
MKT 301 Prin.....	4
MGT 325 Communications.....	4
BA 310 Prod.....	4
FIN 325 Prin.....	4
Electives*, 3 courses	

## Senior

ACCT 451** Auditing.....	4
ACCT 406** Adv.....	4
ACCT 340** Adv. Cost.....	4
ACCT 317** Adv. Tax.....	4
ACCT 347** Tax Research.....	4
QM 401 Operations Research.....	4
BUSL 357 Law of Commercial Transactions.....	4
BA 470 Administrative Policy.....	4
Electives***, 4 courses	

\*To meet the requirement of 77 hours outside the College of Business Administration

\*\*Two accounting courses required of those so marked. The CPA examination requirements in most states will require at least 36 hours, including ACCT 101 and 102

\*\*\*Business or nonbusiness depending on previous selections.

## Business Prelaw Major

It should be recognized that law schools do not prescribe any rigid undergraduate curriculum. A very substantial number of prelaw students, however, do choose one of the business fields of study as their major field for the baccalaureate degree. They may wish to combine the business prelaw major along with one of the other majors in the College of Business Administration if the profession of law is to be their ultimate career goal.

The business prelaw major recognizes the business and economic emphasis of the practice of law, and also provides the breadth of training and philosophical background which is conducive to success in a law school.

Students who decide to major in business prelaw must follow the requirements in one of the other majors in the College of Business Administration, which include accounting, quantitative methods, finance, general business, management, business economics, marketing, and production management. In addition to following the requirements of one of the other majors in the College of Business Administration, students must complete 16 hours at the 300-400 level, including BUSL 356 and four additional hours in business law beyond 356 as selected by the student with the approval of his or her prelaw major advisor. A further eight hours should be selected from the following: ACCT 217 (Introduction to Taxation), ACCT 317 (Federal Income Taxes), ECON 430 (Public Finance), MGT 425 (Labor Relations), POLS 401 and 402 (Constitutional Law), POLS 403 (Judicial Process), POLS 409 (Law Enforcement), POLS 411 (Public Administration), POLS 413 (Administrative Law). Students may also request from their business prelaw advisors written permission to substitute a course different from those listed above. With their advisors' approval, students should elect additional courses in nonbusiness

fields, especially American government, American and English history, English, philosophy, and interpersonal communication.

The Department of Management which contains the law faculty in the College of Business Administration is prepared to assist prelaw students in a number of ways:

Several departmental faculty members give extensive time to counseling students regarding selection of courses, the Law School Admission Test, law school application procedures, and other matters of importance to prelegal education.

Law School Admission Test (LSAT) and Law School Data Assembly Service (LSDAS) are available from the prelaw advisor.

The department maintains ties with the Criminal Justice Program administered by the University College.

The department maintains ties with faculty and staff at various law schools in the country.

## Suggested Course Sequence

Business Prelaw Major Program of Study using management as the business major selected. Requirements for the various business majors vary by the number of hours required and this illustration will need to be modified for other business majors used in combination with the business prelaw major.

## Freshman

## Fall

ECON 101 Prin. of Econ.....	4
ENG 172 Contemp. Wrtng. Skills.....	5
Social science requirement.....	2-5
Elective (MATH 113 unless math background is strong).....	5

## Winter

ECON 102 Prin. of Econ.....	4
MATH 163A Intro. to Calculus.....	4
INCO 103 Pub. Spkng.....	4
Humanities requirements.....	4

## Spring

MATH 163B Intro. to Calculus.....	4
Natural science requirement.....	4
Elective.....	4
Elective.....	4

## Sophomore

## Fall

ACCT 101 Managerial Acct.....	4
QM 200 Business Data Analysis.....	4
Humanities requirement.....	2-5

## Winter

ACCT 102 Managerial Acct.....	4
QM 201 Intro. of Prob. & Stat.....	4
Natural science requirement.....	2-5
Elective.....	2-5

## Spring

BUSL 255 Law & Society.....	4
MGT 300 Mgt.....	4
Social science requirement.....	2-5
Elective.....	2-5

## Junior

## Fall

MGT 440 Organizational Ldrshp & Motiv.....	4
MGT 325 Comm. Behavior in Mod. Organization.....	4
ECON 305 Managerial Econ.....	4
BUSL 356 Law of the Mgt. Process.....	4

## Winter

MGT 420 Admin. of Personnel.....	4
FIN 325 Managerial Finance.....	4

BA 310 Prod. Mgt.....	4
Elective.....	4
Advanced BUSL course.....	4

*Spring*

MGT 430 Mgt. System: Decision-making.....	4
MKT 301 Mkt. Prin.....	4
Business prelaw course.....	4
Elective.....	2-5

*Senior**Fall*

Management major elective.....	2-5
Supporting field elective.....	2-5
Business prelaw course.....	4
Elective.....	2-5

*Winter*

Management major elective.....	2-5
Supporting field elective.....	2-5
Business prelaw course.....	4
Elective.....	2-5

*Spring*

BA 470 Admin. Policy.....	4
Supporting field elective.....	2-5
Elective.....	2-5
Elective.....	2-5

For further information about a major in business prelaw, contact Arthur Marinelli, professor of business law, Copeland Hall 217, Ohio University, Athens, Ohio 45701; telephone 614/594-5414.

**Business Economics Major**

The B.B.A. business economics program is designed to provide a broad business background and is intended for those who plan careers in business and economic research for both private firms and government, in banking, and in marketing analysis. It is also an important component for business management, law, production management, and financial analysis.

**Suggested Course Sequence***Freshman**Fall*

ECON 101 Prin.....	4
Humanities.....	4
Natural science.....	4
Elective.....	4

*Winter*

ECON 102 Prin.....	4
MATH 163A Intro. in Calculus.....	4
Natural science.....	4
Social science.....	4

*Spring*

MATH 163B Intro. to Calculus.....	4
Humanities.....	4
Social science.....	4
Elective.....	4

*Sophomore**Fall*

QM 200 Intro. to Bus. Data Analys.....	4
ECON 304 Macroecon.....	4
Economics elective.....	4
Elective.....	4

*Winter*

QM 201 Intro. to Prob. & Stat.....	4
ACCT 101 Managerial Acct.....	4
Economics elective.....	4
BUSL 255 Law & Society.....	4

*Spring*

ACCT 102 Managerial Acct.....	4
ECON 305 Managerial Econ.....	4
Economics elective.....	4
Elective.....	4

*Junior**Fall*

MGT 325 Comm. Behavior in Mod. Organization.....	4
FIN 325 Managerial Finance.....	4
Elective.....	8

*Winter*

ECON 385 Intro. to Econ. Method. & Res.....	4
MGT 300.....	4
CBA elective.....	4
Elective.....	4

*Spring*

BA 310.....	4
MKT 301 Mkt. Prin.....	4
CBA elective.....	4
Elective.....	4

*Senior**Fall*

BA 470.....	4
Electives.....	12

*Winter*

Electives.....	16
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*Spring*

Electives.....	16
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**Computer Systems in Business Major**

The undergraduate major in computer systems in business is designed to prepare students for careers in data processing (e.g., programmers, customer representatives) or systems analysis (e.g., management information systems, decision support systems, etc.) that require a broad knowledge of business functions and a working knowledge of computer systems and programming. Students graduating with this major are able to employ computers and peripheral equipment in a wide variety of applications. Being able to communicate with both management and computer specialists makes them ideal candidates for liaison roles in organizations or for management or supervisory positions in the data processing field. Often such experience can lead to higher management positions because of the exposure it offers to problems and procedures throughout a company.

Almost every forecast of future job opportunities lists data processing and/or computer related careers as an area of growth in the next decade. For example, a New York Times National Recruitment Survey 1979, based on unpublished U.S. Bureau of Labor Statistics, suggested that jobs for computer programmers will rise by 25.1 percent between then and the mid-1980s, jobs for computer systems analysts will rise by 30.5 percent and jobs for other computer specialists will rise by 30.4 percent.

In addition to the core curriculum for all candidates for bachelors' degrees of business administration, a student majoring in computer systems in business has the following course requirements: (a) 20 credit hours in the following specific courses: QM 420 FORTRAN Programming (or CS 201), QM 430 COBOL Programming, QM 425 Advanced FORTRAN (or QM 435 Advanced COBOL), ACCT 345 Accounting Systems and Internal Control (or MGT 435 Management Systems: Information Handling, or BA 431 Administration of Information Systems), QM 490 Systems and Procedures; (b) at least three additional

courses to be selected from the following, in consultation with one's advisor: QM 425 Advanced FORTRAN, QM 435 Advanced COBOL, ISE 427/428 Digital Computer Systems I and II, ISE 439 Information Systems Engineering, QM 485 Simulation (or ISE 433 Industrial Computer Applications), QM 401 Operations Research, ISE 448 Human Machine Systems, CS 202 Computers and Programming, or other computer science 300-400 level courses.

### Suggested Course Sequence

Freshman	
MATH 163A & 163B.....	8
ECON 101 & 102.....	8
English and humanities.....	6
Social science requirement.....	6
Nonbusiness electives.....	20
	<u>48</u>

Sophomore	
ACCT 101 & 102.....	8
QM 200 & 201.....	8
BUSL 255.....	4
Natural science requirement.....	6
Nonbusiness electives.....	22
	<u>48</u>

Junior	
QM 420 (or CS 201) FORTRAN Programming.....	4-5
QM 430 COBOL Programming.....	4
QM 425 (or 435) Advanced FORTRAN (COBOL) Programming.....	4
ACCT 345 (or MGT 435, or BA 431).....	4
Business core requirements (MGT 300, MGT 325, MKT 301, BA 310, FIN 325).....	20
*Business or nonbusiness electives.....	11-12
	<u>48</u>

Senior	
QM 490 Systems & Procedures.....	4
CSB major electives (see list above).....	9-15
Business core courses (ECON 305, BA 470).....	8
*Business or nonbusiness electives.....	21-27
	<u>48</u>

\*A minimum of 77 hours of nonbusiness courses is required including two courses in mathematics, two courses in natural sciences, two courses in humanities, and two courses in social sciences. A minimum of 77 hours of courses in business (in the College of Business Administration, plus ECON 101/102) is also required.

### Finance Major

The finance major prepares professionals who are concerned with the development and utilization of funds for economic and social purposes. Coursework is available in the fields of financial management (both national and international), commercial banking, financial institutions, security markets, and risk and insurance.

Typically, upon graduation, the finance major obtains direct entry positions in such areas as the financial banking community, insurance, government services, or in an array of industries which employ financial analysts, decision makers, financial strategists, budgeting officers, and planners.

### Suggested Course Sequence\*

Freshman	
Fall	
ECON 101 Prin. of Econ.....	4
MATH 163A Intro. to Calculus.....	4
Nonbusiness electives**.....	

Winter	
ECON 102 Prin. of Econ.....	4
MATH 163B Intro. to Calculus.....	4
Nonbusiness electives.....	

Spring	
Nonbusiness electives.....	

### Sophomore

Fall	
ACCT 101 Managerial Acct.....	4
QM 200 Intro. to Bus. Data Analys.....	4
Nonbusiness electives.....	

Winter	
ACCT 102 Managerial Acct.....	4
QM 201 Intro. to Prob. & Stat.....	4
Nonbusiness electives.....	

Spring	
FIN 325 Managerial Finance.....	4
BUSL 255 Law & Society.....	4
Nonbusiness electives.....	

### Junior

Fall	
BA 310 Prod. Mgt.....	4
ECON 305 Managerial Econ.....	4
FIN 341 Investments.....	4
FIN 327 Banking & Financial Syst.....	4

Winter	
MKT 301 Prin. of Mkt.....	4
MGT 300 Mgt.....	4
FIN 445 Portfolio Mgt.....	4
Business or nonbusiness electives.....	

Spring	
MGT 325 Comm. Behavior in Mod. Organization.....	4
FIN 461 Prob. in Bus. Finance.....	4
FIN 331 Risk & Insurance.....	4
Business or nonbusiness electives.....	

### Senior

Fall	
BA 470 Admin. Policy.....	4
Business or nonbusiness electives.....	

Winter	
FIN 428 Mgt. of Financial Institutions.....	4
Business or nonbusiness electives.....	

Spring	
Business or nonbusiness electives.....	

\*The outlined courses are intended to act as a guide — not as a required sequence. For example, some freshmen should not take MATH 163A first quarter but should instead enroll in MATH 113 or another math course more basic than 163A. A factor influencing this decision is the math proficiency of the individual student. Decisions throughout the four-year program can best be reached by students consulting a faculty advisor for guidance.

\*\*A minimum of 77 hours of nonbusiness courses is required including — six hours in humanities, six hours in natural science, six hours in social science, and the required eight hours of mathematics included in the core courses.

### General Business Major

The general business major prepares professionals on a broad basis for a business career. Five upper-level courses are required from the following area/disciplines: accounting, quantitative methods, management, business law, finance, marketing, production, business administration, and economics. Each such course will be in a different functional area and/or discipline. This major is of special interest to those students who have a generalized view of business and do not possess strong interests in any one concentration area.

Upon graduation, the general business major enters what may be the broadest area of positions of any major within the College of Business Administration. Recent

general business majors have entered such fields as sales, banking, government services, personnel, advertising, small business entrepreneurship, production, and insurance, to name a few.

### Suggested Course Sequence

Freshman	
<i>Fall</i>	
ECON 101 Prin. of Econ.....	4
MATH 163A Intro. to Calculus.....	4
Nonbusiness electives**	
<i>Winter</i>	
ECON 102 Prin. of Econ.....	4
MATH 163B Intro. to Calculus.....	4
Nonbusiness electives	
<i>Spring</i>	
Nonbusiness electives	
Sophomore	
<i>Fall</i>	
ACCT 101 Managerial Acct.....	4
QM 200 Intro. to Bus. Data Analys.....	4
Nonbusiness electives	
<i>Winter</i>	
ACCT 102 Managerial Acct.....	4
QM 201 Intro. to Prob. & Stat.....	4
Nonbusiness electives	
<i>Spring</i>	
BUSL 255 Law & Society.....	4
Nonbusiness electives	
Junior	
<i>Fall</i>	
BA 310 Prod. Mgt.....	4
ECON 305 Managerial Econ.....	4
Accounting or quantitative methods elective above core.....	4
Business or nonbusiness electives	
<i>Winter</i>	
FIN 325 Managerial Finance.....	4
MGT 300 Management.....	4
Economics elective (ECON 303, 304, 320, 332, or 430)....	4
Business or nonbusiness electives	
<i>Spring</i>	
MGT 325 Comm. Behavior in Mod. Organization.....	4
MKT 301 Prin. of Marketing.....	4
Management or business law above core.....	4
Business or nonbusiness electives	
Senior	
<i>Fall</i>	
BA 470 Administrative Policy.....	4
Administrative sciences (finance, marketing, business administration).....	4
Business or nonbusiness electives	
<i>Winter</i>	
Production (BA 411 or BA 412).....	4
Business or nonbusiness electives.....	4
<i>Spring</i>	
Business or nonbusiness electives	

The outlined courses are intended to act as a guide — not as a required sequence. For example, some freshmen should not take MATH 163A first quarter but should instead enroll in MATH 113 or another math course more basic than 163A. A factor influencing this decision is the math proficiency of the individual student. Decisions throughout the four-year program can best be reached by students consulting a faculty advisor for guidance.

\*\* A minimum of 77 hours of nonbusiness courses are required including six hours of humanities, six hours in natural science, six hours in social science, and the required eight hours of mathematics included in the core courses.

### Health Care Management Major

Effective management is increasingly important in today's society because the complexity of the society breeds more and more institutions and organizations. This is particularly true in the area of health care services. In addition, health care has been one of the nation's most rapidly growing fields of employment. It is anticipated that fairly sizeable growth in the health care labor force will continue due to (a) continuing rising demand for quality health care, (b) the broadening scope of services defined as health care, (c) increasing health insurance coverage and federal and state financing, and (d) the changing nature of the population.

While recognizing the importance of a liberal education, our health care management curriculum is career-oriented. It is designed to prepare men and women for positions of responsibility in hospitals, extended care facilities, governmental or volunteer health agencies, health planning and regulatory agencies, and health insurers.

As important as the courses taught, however, is the faculty teaching the courses. You will work with fully qualified faculty in all of your health services management courses. We do not use graduate teaching assistants.

You will also be expected to work closely with a faculty advisor. Your advisor will help you define a realistic career plan, reviewing your interests, strengths, and weaknesses. As an outgrowth of your career plan an educational program will be developed. We firmly believe that a close working relationship with your faculty advisor is an important factor in insuring a sound education.

In addition to the bachelor of business administration degree requirements, a student majoring in health services management must complete the 20-hour health care management core plus at least three additional four-hour electives at the 300 or 400 level.

The health care management core includes:

- (1) ECON 315—Economics of Health Care
- (2) BUSL 360—Law of the Health Care Industry
- (3) MGT 450—Management of Health Care Organizations
- (4) ACCT 312—Accounting for Health Care Organizations
- (5) MGT 498—Internship

The internship is arranged in consultation with the major advisor. It involves significant work experience in a health care organization and normally takes place in the summer between a student's junior and senior year.

The three elective courses are also selected in consultation with the major advisor. These courses are intended to provide additional background in a specialty area and may include nonbusiness as well as business courses.

For further information about a major in health care management, contact Thomas W. Johnson, Chairperson, Management Department, College of Business Administration, Copeland Hall 107, Ohio University, Athens, Ohio 45701; 614/594-5165.

### Suggested Course Sequence

Freshman	
<i>Fall</i>	
ECON 101 Prin. of Econ.....	4
ENG 172 Contemp. Writing Skills.....	5
Social science requirement	
Elective (MATH 113 unless math background is strong)	
<i>Winter</i>	
ECON 102 Principles.....	4
MATH 163A Calculus.....	4



INCO 103 Public Speaking.....	4
Humanities requirement	
<i>Spring</i>	
MATH 163B Calculus.....	4
Natural science requirement	
Elective	
Elective	
<i>Sophomore</i>	
<i>Fall</i>	
ACCT 101 Managerial Acct.....	4
QM 200 Bus. Data Analysis.....	4
Humanities requirement	
Elective	
<i>Winter</i>	
ACCT 102 Managerial Acct.....	4
QM 201 Prob. & Stat.....	4
Natural science requirement	
Elective	
<i>Spring</i>	
BUSL 255 Law & Society.....	4
MGT 300 Management.....	4
Social science requirement	
Elective	
<i>Junior</i>	
<i>Fall</i>	
MGT 325 Comm. Behavior in Mod. Organization.....	4
FIN 325 Managerial Finance.....	4
ECON 305 Managerial Econ.....	4
Elective	
<i>Winter</i>	
BA 310 Production Mgt.....	4
ECON 315 Econ. of Health Care.....	4
BUSL 360 Law of Health Care Industry.....	4
Health management elective	
<i>Spring</i>	
ACCT 312 Acct. for Health Care.....	4
MKT 301 Marketing Principles.....	4
MGT 450 Mgt. of Health Care.....	4
Elective	
<i>Senior</i>	
<i>Fall</i>	
Major Health Management elective.....	4
Elective	
Elective	
Elective	
<i>Winter</i>	
Major Health Management elective.....	4
Elective	
Elective	
Elective	
<i>Spring</i>	
BA 470 Administrative Policy.....	4
Elective	
Elective	
Elective	

In addition, the internship can be taken during the summer period or during the mid-year break, or during a quarter if arrangements can be made

## Management Major

Effective management is increasingly important in today's society because the complexity of the society breeds more and more institutions and organizations. Managing is an important activity in each of these. Thus there is, and will continue to be, a strong demand for effective managers to plan activities, to provide direction, and to

work effectively with other people to insure that organizational goals are accomplished.

The management major curriculum is designed to provide the educational base for supervisors, executives, and administrators in business, government, and other institutions. In addition to the B.B.A. degree requirements, a student majoring in management must complete the 16-hour departmental core plus at least two four-hour electives in management and INCO 103 (Public Speaking). The departmental core is composed of BUSL 356 Law of the Mgt. Process; MGT 420 Admin. of Personnel; MGT 430 Mgt. Systems: Decision-Making; and MGT 440 Organizational Behavior: Leadership & Motivation. The major electives may be any 400-level courses in the departmental curriculum not specified as part of the college core or the departmental core. Students desiring to concentrate their major electives can concentrate in personnel-industrial relations, organizational behavior, or management systems.

Since managers function in different types of institutions and manage different types of operations, it is strongly recommended that all management majors select a supporting field of study. The supporting field should be selected to provide a strong base for the student's career development. Students normally select, in consultation with their advisors, three to five courses in the supporting field. Recommended courses for the following supporting fields are available in the department chairman's office: manufacturing management, public administration, retail management, natural resource management, and international management. In addition, students may, in consultation with their advisors, tailor their own supporting fields to meet their own unique career goals.

A student majoring in management will be assigned an advisor who will work with the student to help define career goals based upon student interests, review strengths and weaknesses, and recommend relevant elective courses. Students are expected to meet with their advisors at least once each quarter.

Students majoring in other areas frequently select management as a minor. Management minors normally take at least six courses. The specific courses taken are selected, in consultation with an advisor, to support the student's career orientation.

Additional information regarding the management major or minor may be obtained at the Office of the Chairman, Department of Management, 107 Copeland Hall.

## Suggested Course Sequence

### Freshman

#### Fall

ECON 101 Prin. of Econ.....	4
ENG 172 Contemp. Wrting. Skills.....	5
Social science requirement	
Elective (MATH 113 unless strong math background.)	

#### Winter

ECON 102 Prin. of Econ.....	4
MATH 163A Intro. to Calculus.....	4
INCO 103 Pub. Spkng.....	4
Humanities requirement	

#### Spring

MATH 163B Intro. to Calculus.....	4
Natural science requirement	
Elective	
Elective	

Sophomore		
<i>Fall</i>		
ACCT 101 Managerial Acct.....	4	
QM 200 Intro. to Bus. Data Analys.....	4	
Humanities requirement		
Elective		
<i>Winter</i>		
ACCT 102 Managerial Acct.....	4	
QM 201 Intro. to Prob. & Stat.....	4	
Natural science requirement		
Elective		
<i>Spring</i>		
BUSL 255 Law & Society.....	4	
MGT 300 Mgt.....	4	
Social science requirement		
Elective		
Junior		
<i>Fall</i>		
MGT 440 Organizational Ldrshp. & Motiv.....	4	
MGT 325 Comm. Behavior in Mod. Organization.....	4	
ECON 305 Managerial Econ.....	4	
BUSL 356 Law of Mgt. Proc.....	4	
<i>Winter</i>		
MGT 420 Admin. of Personnel.....	4	
FIN 325 Managerial Finance.....	4	
BA 310 Prod. Mgt.....	4	
Elective		
<i>Spring</i>		
MGT 430 Mgt. Systems: Decision-Making.....	4	
MKT 301 Mkt. Prin.....	4	
Elective		
Elective		
Senior		
<i>Fall</i>		
Management major elective		
Supporting field elective		
Elective		
Elective		
<i>Winter</i>		
Management major elective		
Supporting field elective		
Elective		
Elective		
<i>Spring</i>		
BA 470 Admin. Policy.....	4	
Supporting field elective		
Elective		
Elective		
PSY 101 Gen. Psych.....		5
Nonbusiness electives**		
<i>Winter</i>		
ECON 102 Prin. of Econ.....	4	
MATH 163B Intro. to Calculus.....	4	
Nonbusiness electives		
<i>Spring</i>		
Nonbusiness electives		
Sophomore		
<i>Fall</i>		
ACCT 101 Managerial Acct.....	4	
QM 200 Intro. to Bus. Data Proc.....	4	
Nonbusiness electives		
<i>Winter</i>		
ACCT 102 Managerial Acct.....	4	
QM 201 Intro. to Prob. & Stat.....	4	
Nonbusiness electives		
<i>Spring</i>		
MKT 301 Prin. of Mkt.....	4	
BUSL 255 Law & Society.....	4	
Nonbusiness electives		
Junior		
<i>Fall</i>		
BA 310 Prod. Mgt.....	4	
ECON 305 Managerial Econ.....	4	
MKT 303 Mkt. Problems & Cases.....	4	
MKT 444 Consumer Behavior.....	4	
<i>Winter</i>		
FIN 325 Managerial Finance.....	4	
MGT 300 Mgt.....	4	
MKT 404 Mgt. of Distribution.....	4	
MKT 450 Mgt. of Promotion.....	4	
<i>Spring</i>		
MGT 325 Comm. Behavior In Mod. Organization.....	4	
MKT 458 Sales Mgt.....	4	
MKT 479 Mkt. Research.....	4	
Business or nonbusiness electives		
Senior		
<i>Fall</i>		
BA 470 Admin. Policy.....	4	
MKT 463 Mkt. Strategy.....	4	
Business or nonbusiness electives		
<i>Winter</i>		
Business or nonbusiness electives		
<i>Spring</i>		
Business or nonbusiness electives		

## Marketing Major

The marketing major prepares students to become professional marketing personnel via available coursework in sales management, marketing research and consumer behavior, and marketing analysis and management (national as well as international).

Typically, upon graduation, the marketing major obtains direct entry positions in such areas as sales, sales management, promotion, public relations, and advertising, with companies which specialize in analysis and description of the consumer and his or her attitudes and behaviors.

## Suggested Course Sequence

Freshman	
<i>Fall</i>	
ECON 101 Prin. of Econ.....	4
MATH 163A Intro. to Calculus.....	4

The outlined courses are intended to act as a guide — not as a required sequence. For example, some freshmen should not take MATH 163A first quarter but should instead enroll in MATH 113 or another math course more basic than 163A. A factor influencing this decision is the math proficiency of the individual student. Decisions throughout the four-year program can best be reached by students consulting a faculty advisor for guidance.

\*A minimum of 77 hours of nonbusiness courses is required including — six hours in humanities, six hours in natural science, six hours in social science, and the required eight hours of mathematics included in the core courses.

## Personnel and Industrial Relations Major

The demand for students with training in the area of personnel and industrial relations is increasing quite substantially. The Bureau of Labor Statistics predicts that the number of people in this area will increase faster than the average of all occupations at least through 1985.

The personnel and industrial relations major is designed to provide an educational background for students with a career interest in the personnel function and/or in labor relations in both private and public sector organizations. Specifically the major is designed to provide basic

preparation for entry-level positions in personnel and provide an educational background which supports career advancement in personnel and industrial relations.

In addition to the B.B.A. requirements, a student majoring in personnel and industrial relations must complete the following courses: INCO 103 (Public Speaking), BUSL 356 (Law of the Management Process), MGT 420 (Administration of Personnel), MGT 421 (Personnel Management Problems), MGT 425 (Labor Relations), MGT 426 (Manpower Management), MGT 428 (Nonindustrial Labor Relations), MGT 440 (Organizational Behavior-Leadership Motivation), and MGT 496 (Organizational Behavior-Managing Change).

Majors are also expected to select, with the help of their advisors, electives relevant to their career preparation. A sample of recommended electives follows: ACCT 310 (Cost Accounting), ANTH 270 (Basic Concepts of Anthropology), BS 201 (History of the Black Worker), ECON 320 (Labor Economics), ECON 321 (Labor Legislation), ISE 422 (Seminar in Occupational Safety and Health), INCO 404 (Principles and Techniques of Interviewing), PSY 101 (General Psychology), PSY 241 (Behavioral Measurement), PSY 261 (Industrial Psychology), PSY 275 (Educational Psychology), PSY 336 (Social Psychology), and SOC 101 (Introduction to Sociology).

Additional information regarding the major may be obtained at the office of the Chairman, Department of Management, Copeland Hall 107.

### Suggested Course Sequence

#### Freshman

##### Fall

ECON 101 Prin. of Econ.....	4
ENG 172 Cont. Writing Skills.....	5
Social science requirement	
Elective (MATH 113 unless strong math background)	

##### Winter

ECON 102 Prin. of Econ.....	4
MATH 163A Intro. to Calculus.....	4
INCO 103 Public Speaking.....	4
Humanities requirement	

##### Spring

MATH 163B Intro. to Calculus.....	4
Natural science requirement	
Elective	
Elective	

#### Sophomore

##### Fall

ACCT 101 Managerial Acct.....	4
QM 200 Intro. to Bus. Data Analys.....	4
Humanities requirement	
Elective	

##### Winter

ACCT 102 Managerial Acct.....	4
QM 201 Intro to Prob & Stat.....	4
Natural science requirement	
Elective	

##### Spring

MGT 300 Management.....	4
BUSL 255 Law & Society.....	4
Social science requirement	
Elective	

#### Junior

##### Fall

MGT 420 Admin. of Personnel.....	4
MGT 325 Comm. Behavior in Mod. Organization.....	4

ECON 305 Managerial Econ.....	4
BUSL 356 Law of Mgt. Process.....	4

##### Winter

MGT 440 Organ. Leader & Motiv.....	4
FIN 325 Managerial Finance.....	4
BA 310 Production Mgt.....	4
Elective	

##### Spring

MGT 425 Labor Relations.....	4
MKT 301 Marketing Principles.....	4
Elective	
Elective	

#### Senior

##### Fall

MGT 421 Personnel Mgt. Prob.....	4
Elective	
Elective	
Elective	

##### Winter

MGT 428 Nonindustrial Labor Relations.....	4
MGT 496 Organ. Behav.-Mgt. Change.....	4
Elective	
Elective	

##### Spring

MGT 426 Manpower Mgt.....	4
BA 470 Admin. Policy.....	4
Elective	
Elective	

### Production Management Major

The program in production management is primarily concerned with the effective management of the physical and human resources of an organization. By partaking in a study of an interdisciplinary curriculum, the student obtains a basic understanding of how to effectively manage facilities, equipment, and personnel, and their interactions in a variety of activities such as manufacturing/ assembling, transportation, warehousing, research, or assembly-line operations.

The production management major is often called upon to design, construct, and operate elements in the input-transformation-output process/system. Those majoring in this program can expect to find career opportunities either in a supervisory capacity in an actual production operation or in one of the many staff assignments in manufacturing, such as methods and standards, evaluation of job content and design, production and inventory control, quality control, or in related fields such as purchasing, subcontracting, and industrial marketing.

For additional information or advising for the major, contact the Administrative Sciences Department, Copeland Hall.

### Suggested Course Sequence\*

#### Freshman

##### Fall

ECON 101 Prin. of Econ.....	4
MATH 163A Intro. to Calculus.....	4
Nonbusiness electives**	

##### Winter

ECON 102 Prin. of Econ.....	4
MATH 163B Intro. to Calculus.....	4
Nonbusiness electives	

##### Spring

Nonbusiness electives	
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## Sophomore

## Fall

ACCT 101 Managerial Acct.....	4
QM 200 Intro. to Bus. Data Proc.....	4
Nonbusiness electives	

## Winter

ACCT 102 Managerial Acct.....	4
QM 201 Intro. to Prob. & Stat.....	4
Nonbusiness electives	

## Spring

BUSL 255 Law & Society.....	4
Nonbusiness electives	

## Junior

## Fall

BA 310 Prod. Mgt.....	4
ECON 305 Managerial Econ.....	4
Business or nonbusiness electives	

## Winter

FIN 325 Managerial Fin.....	4
MGT 300 Mgt.....	4
ISE 333 Work Design.....	4
Business or nonbusiness electives	

## Spring

MGT 325 Comm. Behavior in Mod. Organization.....	4
MKT 301 Prin. of Mkt.....	4
ACCT 310 Cost Acct.....	4
Business or nonbusiness electives	

## Senior

## Fall

MGT 425 Labor Relations.....	4
BA 411 Prod. Planning & Control.....	4
OR	
ISE 432 Inventory & Mfg. Control I.....	3
Business or nonbusiness electives	

## Winter

ISE 440A Industrial Plant Design.....	2
QM 401 Operations Research.....	4
MGT 440 Organizational Behavior Ldrshp. & Motiv.....	4
Business or nonbusiness electives	

## Spring

ISE 440B Industrial Plant Design.....	3
BA 470 Admin. Policy.....	4
BA 412 Prod. Mgt. Prob.....	4
Business or nonbusiness electives	

\*The outlined courses are intended to act as a guide — not as a required sequence. For example, some freshmen should not take MATH 163A first quarter but should instead enroll in MATH 113 or another math course more basic than 163A. A factor influencing this decision is the math proficiency of the individual student. Decisions throughout the four-year program can best be reached by students consulting a faculty advisor for guidance.

\*A minimum of 77 hours of nonbusiness courses is required including — six hours in humanities, six hours in natural science, six hours in social science, and the required eight hours of mathematics included in the core courses.

## Quantitative Methods Major

The undergraduate major in quantitative methods is designed to prepare students for careers as statisticians or analysts in a variety of functionally oriented positions in industry or government. Students majoring in QM also gain the basic knowledge of quantitative methods and techniques that are necessary if they are considering graduate work in statistics or operations research.

Students choosing the statistics and operations research options are encouraged to also obtain some depth of knowledge in some functional area beyond the core courses to complement their study of quantitative methods.

Graduates of the programs in quantitative methods have obtained jobs as statistical analysts (in quality control, marketing research, financial research), and in oper-

ations research (internal company organization research groups, public accounting firms' management advisory services, or management consulting firms).

In addition to the core curriculum for all candidates for bachelors' degrees in the College of Business Administration, a major in quantitative methods consists of a minimum of 24 credit hours of 400-level QM courses, with at least four credit hours in each of the following areas: (1) statistics and (2) operations research.

## Suggested Course Sequences

The first two years would be approximately the same for any sequence.

## Freshman

MATH 163A & 163B.....	8
ECON 101 & 102.....	8
English and humanities.....	8
Social science.....	8
Non-CBA electives*	16
	48

## Sophomore

ACCT 101 & 102.....	8
QM 200 & 201.....	8
BUSL 255.....	4
Natural science.....	8
Non-CBA electives*	20
	48

\*To meet requirements of 40 percent of work outside the College of Business Administration (CBA) including two courses in math, two courses in natural sciences, two courses in humanities, and two courses in social sciences.

Two possible major programs in quantitative methods and courses (all are four-quarter-hour courses) suggested for those areas are:

## Statistics

## Junior

QM 454 Interm. Probability Theory.....	4
QM 455 Sampling Theory.....	4
QM 403 Statistical Quality Control.....	4

## Senior

QM 401 Operations Research.....	4
QM 420 FORTRAN Programming (or CS 201).....	4
QM 438 Nonparametric Stat.....	4

## Operations Research

## Junior

QM 401 Operations Research.....	4
QM 420 FORTRAN Programming.....	4
QM 485 Simulation.....	4

## Senior

QM 454 Interm. probability Theory.....	4
QM 455 Sampling.....	4
QM 491 Mgt. Science Seminar.....	3, 4, or 5

## Preparation for Law School

A student in the College of Business Administration who plans to enter law school should follow the bachelor of business administration degree curriculum and also elect, with the approval of his or her advisor, courses in other fields, especially American government, American and English history, English, philosophy, interpersonal communication, and additional theory courses in the College of Arts and Sciences, except those which substantially duplicate material found in the typical law school curriculum.

The Ohio Supreme Court in its regulations governing the admission to the practice of law in Ohio provides that a student entering law school must be able to show possession of an undergraduate degree from an approved college if he or she wishes to take the Ohio Bar Examination. However, the Ohio Supreme Court provides for one possible exception to the preceding regulation — if a person has earned, subsequent to graduation from law school, a bachelor's degree through completion of courses and credits other than those received in law school, and has made a record of academic achievement which is satisfactory to the Ohio Supreme Court, such a person may, in the court's discretion, be permitted to apply for admission to the practice of law in Ohio. Law schools in the state of Ohio have supplemented this Supreme Court rule by requiring an undergraduate degree of all entering students, regardless of the state in which they plan to take the bar examination.

For the benefit of those students who do not plan to take the Ohio Bar Examination and who do not plan to seek admission to an Ohio law school, a degree *in absentia* program is available as described in the following statement.

A student who desires to enter a school of law located outside Ohio at the end of three years of college work and receive the bachelor of business administration degree from Ohio University after completing the first year in law school may do so provided the following conditions are met: the student has the written approval of the dean of the College of Business Administration; a minimum of 144 quarter hours, including the required courses in the bachelor of business administration degree curriculum (BUSL 255 excluded), are completed with a point-hour ratio of 2.0 on all hours attempted; a full year's work in an accredited law school is completed with an average equivalent to that prescribed for the bachelor's degree at Ohio University and the student is eligible for advancement without condition to the second year.

If there is any possibility that a student might wish to take the Ohio Bar Examination, he or she is urged to obtain the undergraduate degree before entering law school.

## CENTER FOR BUSINESS ENTERPRISES

The Center for Business Enterprises was established to provide advisory services to small businesses in southeast Ohio. It also aims to provide a learning opportunity for students and faculty who participate in case studies that assist small businesses. As a by-product of this dialogue between students, teachers, and practitioners, further research projects are encouraged and facilitated. Special courses to meet the identified needs of operators of small businesses may be arranged through the University's Office of Lifelong Learning. The center is financed through grants and contract funds. It is administered by the Department of Administrative Sciences, but any student or faculty member of Ohio University who has the interest and appropriate preparation or skills may participate.

## CENTER FOR COURT ADMINISTRATION

The Center for Court Administration was established to (1) provide focus for the systematic study of the court system as an organizational entity; (2) serve as a forum for the orderly exchange of information about the role of the court system in society; (3) facilitate improvement in court operations through active involvement in the standardization of policies, procedures, and practices where feasible; and (4) to assist the courts in their attempt to service the needs of the community. Center personnel are experienced in the areas of law, the court system, and administration. Graduate and undergraduate students participate in the work of the center through independent study projects. The center is financed through grants and contract funds and is administered by the Department of Management.

## CENTER FOR LEADERSHIP STUDIES

The Center for Leadership Studies was established to (1) encourage and support research on leadership and related areas, (2) disseminate information on theory and research to both researchers and practitioners, (3) encourage and support dialogue between researchers and practitioners, and (4) provide opportunities for students to become actively involved in significant leadership research and interact with professionals in the area. Members of the center have been active in these areas since the center's establishment in 1973. Their work has resulted in the publication of several books and numerous articles, as well as a number of short research notes and working papers. In addition, much effort has been directed toward the development of research instruments and learning devices. Members of the center are also active in consulting and training practitioners in the latest developments on leadership theory and research. The center is financed through grants and contract funds and is administered by the Department of Management.

## INSTITUTE FOR SYSTEMS ANALYSIS

The Institute for Systems Analysis was established to provide research, publication, training, and advisory capability for those aspects of managerial and organizational life that are involved with information, information systems, and information technology. Although institute activities focus primarily upon problems and processes associated with administrative, promotional, or operations-based information systems, other types of information systems are also within its range of competence and interest. Associates of the institute represent several major disciplines and areas of expertise and come from Ohio University; from other colleges and universities; and from business, governmental, and professional organizations. The institute is financed by grant and contract funds and is administered by the Department of Management.

## College of Communication

Paul E. Nelson, *Dean*

Thomas Dunlap, *Assistant Dean*

Dudley Williams, *Assistant to the Dean*

The College of Communication includes the School of Interpersonal Communication, the School of Journalism, and the School of Radio-Television, the Institute of Visual Communication, and the Center for Communication Management.

The college was created to meet more fully the communication needs of a changing society. New forms of communication, the growth of the communication systems, and the need for better communication between peoples, races, economic groups, and among nations generally were all factors in a decision that Ohio University should move on a broad and substantial basis to prepare graduates both for traditional roles and for responsibilities not previously acknowledged.

The college is equipped to train graduates for professional careers in journalism, in broadcasting, for telecommunications, in visual communications, and for organizational and interpersonal communication. The college operates on the assumption that professional competency in these areas calls for the highest possible proficiency in the field of specialization, plus the broadest possible liberal education in other disciplines.

In journalism, a fully accredited school offers work in advertising, magazine journalism, news writing and editing, public relations, radio-television news, and foreign correspondence.

The journalism school is the fourth largest in the country, and each year graduates more than 200 seniors who move into professional careers on leading newspapers, magazines, and news-gathering organizations as well as into advertising and public relations positions. Careers take them to all parts of the world.

The School of Radio-Television trains professionals for work in broadcasting generally, with specialized careers in radio-television news, station and network management, radio and television production and programming, as well as combined courses with the School of Journalism in reporting, editing, public relations, and advertising.

Students work in the University broadcast services at radio station WOUB and the University television station, WOUB-TV, for actual experience.

The School of Interpersonal Communication offers courses in public speaking, debate and discussion, small group and organizational communication, persuasion, rhetoric, the history of public address, etc. Students may

study the problems and processes of communication first hand in business, industrial, educational, and other types of organizations in the Center for Communication. An intercollegiate forensics program is open to all interested students.

All programs of study at the undergraduate level lead to the bachelor's degree. More detailed descriptions and the requirements for the various majors offered in the schools are given in the pages immediately following.

Graduate programs leading to the M.A. and Ph.D. degrees are available in all areas. These are described in detail in the graduate catalog.

### Degrees and Requirements

The College of Communication offers curricula leading to the degrees of bachelor of science in communication (in the schools of Interpersonal Communication and Radio-Television), bachelor of arts (School of Interpersonal Communication), and bachelor of science in journalism (School of Journalism).

Each candidate for a degree in the College of Communication must satisfy the requirements established by the school in which he or she is enrolled. In addition to program requirements for completion of the bachelor's degree, a student must check with the proposed school for possible entrance requirements which are separate from admission to the college. Those requirements are specified on the following pages.

Additionally, students are required to meet the General Education requirements which have been established by Ohio University (see pages 33-34). Most General Education courses, however, can be used to satisfy both program and University requirements. Consult with your advisor on the dual use of those courses.

The student must also have a minimum total of 192 earned hours with a 2.0 (C) average in that total. He or she must also have a 2.0 (C) average in all hours attempted in the program. Only the final hours earned when courses are repeated count toward graduation.

The minimum residency requirement for a student receiving a bachelor's degree from the College of Communication shall be the final year (three quarters) or the final 48 hours of credit. In certain cases exceptions to the residency requirement may be made by the academic



dean in consultation with the director of the school which the student plans to enter.

### Advising

A student entering the College of Communication is assigned an advisor by the school which he or she plans to enter. Advisors will be assigned on the basis of student interest. Faculty advisors assist in the preparation of a schedule each quarter so that the proper sequence of courses in the major and appropriately related courses is selected. *The student, however, is responsible for seeing that all requirements for the degree are being met.*

### Scholarships

Scholarships sponsored by the four schools within the College of Communication for qualified undergraduate students are available on an annual basis. Inquiries on the scholarship program should be directed to the scholarship chairman of the student's intended area of study.

## SCHOOL OF JOURNALISM

Cortland Anderson, *Director*

### BACHELOR OF SCIENCE IN JOURNALISM

The Ohio University School of Journalism is accredited by the American Council on Education for Journalism. It is one of a limited number of accredited schools and departments of journalism in the United States. It is one of the members of the American Association of Schools and Departments of Journalism.

### Purposes and Objectives

The purposes of the Ohio University School of Journalism are (1) to provide thorough, broadly based professional education and training in journalism and communications, leading to the B.S.J. and advanced degrees; (2) to provide liberal and cultural background in the arts, literature, languages, social, and natural sciences; (3) to promote scholarly research and achievements by the faculty and students; (4) to provide leadership and assistance to high school journalism and to professional associations on state, national, and international levels; and (5) to set high standards of journalism ethics.

Journalism today is a profession — like medicine, law, teaching, or engineering. It requires its practitioners to be culturally educated and professionally trained. Blending the liberal arts with professional courses, Ohio University journalism students take approximately three-fourths of their courses outside the professional school.

Five sequences are offered, all leading to the bachelor of science in journalism degree: advertising, magazine journalism, news writing and editing, public relations, and radio-TV news.

Courses in photojournalism are taught by the Institute of Visual Communication faculty.

While working toward their degrees, students may serve on the staff of *The Athens Messenger*, an independently owned daily newspaper. The city editor, managing

editor, sports editor, and women's editor are faculty members of the School of Journalism. The student staff members of *The Athens Messenger* gather and write news, edit local and Associated Press copy, write headlines, and prepare copy and layouts. This training prepares students to take and hold jobs immediately after graduation.

Practical experience is also available on a laboratory magazine and in graphics and advertising laboratories. Many students add to their experience by helping edit *The Post*, daily campus newspaper, or the *Spectrum Green*, University yearbook.

In radio-television news, students get practical experience in preparing and broadcasting news over the University's radio and television stations.

**Internship Program.** Consistent with its policy of combining classwork with practical training, the School of Journalism has a journalism internship program. Juniors or seniors are eligible for appointment as interns. The period of internship is ten weeks. The intern is provided with as varied experience in practical journalism as possible and is paid a moderate sum for his or her work and study. No credit will be granted for internship work itself. However, upon completion of the internship period, a student is permitted to enroll the following quarter in JOUR 462, Internship, for three hours of credit. The selection of the interns is made by the director of the journalism internship program.

### Curricula and Requirements

The American Council on Education for Journalism includes among its Accrediting Standards the following provision:

Generally three-fourths of the student's program should consist of courses in the liberal arts and sciences and one-fourth in professional courses in journalism.

Journalism students at Ohio University meet the above provision largely by fulfilling two sets of requirements: general and specialization area requirements. The first of these provides for a liberal arts and sciences core for all students, as follows:

Political Science (2 qtrs)  
Sociology or Anthropology (2 qtrs)  
Economics (2 qtrs)  
Psychology (1 qtr)  
History (3 qtrs)  
English (2 qtrs)

Two of the following:

Language (3 qtrs basic sequence or 1 qtr advanced)  
Science (3 qtrs of one science in accordance with Arts and Sciences catalog description)  
Computer Science, quantitative methods, statistics (3 qtrs)  
Philosophy (2 qtrs, one of which must be logic)  
Comparative Arts (3 qtrs)  
Afro-American Studies (3 qtrs)

To this liberal base, which should be the focus of the freshman year, journalism students add courses in a desired area or areas of specialization. This requirement may be filled by completing any one of three options:

1. a minimum of 36 hours in a single department within the College of Arts and Sciences (usually structured in accordance with the major requirements of the selected department),
2. a minimum of 18 approved hours in each of two departments in Arts and Sciences,

3. a minimum of 18 approved hours in one Arts and Sciences department and 18 approved hours in any other series of related courses.

Additional nonjournalism courses are required in some sequences. No course may be counted in more than one type of requirement. For example, a course used to meet a general requirement may not be applied to a sequence or specialization area requirement as well.

To assure the liberal stress of the overall program, the professional content of the B.S.J. is limited to one-fourth of the 192 hours required for the degree. Credits for all courses in journalism, radio-television, and photography should total at least 45 hours and not more than 55 hours. All professional hours beyond 55 must be compensated for by nonprofessional hours over the required 192-hour total. Nonjournalism courses which are required in sequences are not to be counted as part of the 45-55 total professional hours.

### Standards

1. To qualify to take JOUR 231, students must first pass an English proficiency examination. Passing score for this test is 75. Any student who does not pass on the first effort will be permitted to retake the examination at a later date. Passing scores on retake examinations are 75 if the exam is taken as a sophomore and 80 for juniors and seniors.
2. To qualify for admission in JOUR 231 students must achieve at least 25 words per minute on a typing examination. This exam is administered on the first day of the JOUR 231 class.
3. To remain active in the B.S.J. program, a student must earn at least a C in News Reporting.

### Journalism Sequences

All journalism majors complete a basic 20-hour core of five courses. These are: JOUR 221, Graphics (5); JOUR 231, News Reporting (4); JOUR 333, News Editing (4); JOUR 411, Newspaper and Communications Law (4); and JOUR 412, Mass Media and Society (3). A grade of C or better is required in 231, 333, 411, and 412.

JOUR 105, Introduction to Mass Communication, a freshman course, is optional, but recommended for all those entering journalism.

The additional requirements for the various sequences are as follows:

#### Advertising

JOUR 250 Advert. Prin.....	5
JOUR 321 Newspaper Advert. & Layout.....	4
JOUR 323 Newspaper Advert. Prac.....	2
OR	
JOUR 462 Internship.....	3
JOUR 450 Advert. Copy Wrng.....	3
JOUR 482 R-TV Advert. & Mgt.....	4
Journalism electives to make 45-55 hours	
MKT 301 Mkt. Prin.....	4

#### Public Relations

JOUR 331 Rptng. Contemp. Issues.....	3
JOUR 332 Rptng. Prac.....	2
OR	
JOUR 462 Internship.....	3
JOUR 430 Mag. Edit. & Prod.....	4
JOUR 471 PR Prin.....	5
JOUR 472 Adv. PR.....	4
Choose two:	
JOUR 351 News in Brdcstng.....	5

JOUR 441 Mag. Feature Wrng.....	4
JOUR 450 Advert. Copy Wrng.....	3
JOUR 465 Editorial Page.....	3
Journalism electives to make 45-55 hours	
Select one course from SOC 210, 211, 412, 413, or 414.....	4

#### Magazine

JOUR 311 Hist. of Am. Jour.....	4
JOUR 430 Mag. Ed. & Prod.....	4
JOUR 431 Mag. Editing Practice.....	3
JOUR 441 Mag. Feature Wrng.....	4
Select two:	
JOUR 331 Rptng. Contemp. Issues.....	3
JOUR 363 Review & Crit.....	3
JOUR 432 Specialized Mags.....	3
JOUR 442 Adv. Mag. Feature Wrng.....	3
Journalism electives to make 45-55 hours	
ENG 307 Struct. of Am. English.....	5
OR	
ENG 308 Adv. Comp.....	5
OR	
ENG 309 Creative Wrng.....	5

#### News Writing and Editing

JOUR 311 Hist. of Am. Jour.....	4
JOUR 331 Rptng. Contemp. Issues.....	3
JOUR 332 Rptng. Prac. AND.....	2
JOUR 334 Edit. Prac.....	2
OR	
JOUR 462 Internship.....	3
JOUR 464 Rptng. Pub. Affairs.....	3
Select two:	
JOUR 351 News in Brdcstng.....	5
JOUR 363 Review & Criticism.....	3
JOUR 441 Mag. Feature Wrng.....	4
JOUR 442 Adv. Mag. Feature Wrng.....	3
JOUR 465 Editorial Page.....	3
Journalism electives to make 45-55 hours	

#### Radio-Television News

JOUR 351 News in Brdcstng.....	5
JOUR 353 R-TV News Prac.....	2
OR	
JOUR 462 Internship.....	3
JOUR 452 TV Newsfilm Prod. & Edit.....	3
JOUR 455 Seminar in Brdcst. News.....	3
R-TV 106 Intro. to R-TV.....	4
R-TV 200A Brdcst. Wrng. & Prod. Planning.....	4
Journalism electives to make 45-55 hours	

### Carr Van Anda Program

A junior with a 3.0 accumulative average in journalism and 2.5 accumulative average in all work may elect a sequence making up his or her own program in journalism. It will consist of the basic core of five courses plus the student's choice of journalism courses to equal 45-55 hours. The program must have the approval of the student's advisor and the director of the School of Journalism. Formal application is necessary.

## SCHOOL OF INTERPERSONAL COMMUNICATION

Lynn Alan Phelps, Director

The School of Interpersonal Communication offers a general, liberal education, emphasizing the scientific and

artistic bases of communication. Students in three undergraduate majors study group communication and public address: communication theory and process; organizational communication as applied to business, industrial, and educational institutions; and speech communication in the secondary schools.

Specific major programs are developed to meet the needs of each student. A combination of areas and specific courses can lead to professional or preprofessional competence in such fields as teaching, foreign service, law, politics and government, theology, public relations, labor-management relations, personnel, campaign and propaganda administration, and poll and survey management. The School of Interpersonal Communication places qualified undergraduate and graduate majors in trainee or internship programs on a credit or noncredit basis as suitable opportunities arise.

Through its forensics program, interpersonal communication provides the opportunity for all students to meet outstanding undergraduates from 300 or more colleges and universities in intellectual competition. Thirty tournaments at other schools and three held on campus enable students to develop skills in debate, extemporaneous speaking, oratory, discussion, and oral interpretation. Excellence in scholarship and superior performance in speech communication are rewarded in several ways. Delta Sigma Rho-Tau Kappa Alpha national honorary is open to students in the upper third of their class who excel in forensics. The Lorin C. Staats Award is given to the outstanding senior who has participated with distinction in several forensics areas. The outstanding junior or senior debater receives the Francis McVicker Maxwell Award.

### Center for Interpersonal Communication Resources

The Center for Interpersonal Communication Resources identifies, develops, and utilizes both human and material resources to help meet academic, professional, business, and public service communication needs and interests. Center personnel plan, develop, and hold seminars, conferences, and in-service training programs in human communication for the University community in the southeastern Ohio region.

### Cross Disciplinary Center for Studies of Culture

The center houses the original works of Jean Gebser and other cultural theorists. It provides the opportunity for a phenomenological approach to the study of communication and culture. The center is open to all students, particularly those in philosophy, rhetoric, and communication. Conferences are planned by center personnel for intensive research of the relationship between culture and communication.

### Listening Laboratory

The laboratory contains audio tapes, recorded speeches, and films and provides audio-visual materials for teaching, research, and learning. A closed-circuit television studio is available for class instruction. These facilities are open to students and faculty throughout the University.

## Preparation for Law School

A student in the School of Interpersonal Communication who plans to enter law school normally completes a course of study which leads to the bachelor of science or bachelor of arts degree. The objectives of prelegal education, as stated by the Association of American Law Schools, are: (1) comprehension and expression in words, (2) critical understanding of the human institutions and values with which the law deals, and (3) creative power in thinking.

The prelaw student in interpersonal communication will be individually advised and counselled so that he or she might not only meet these educational goals within a liberal and humanistic course of study but also develop preprofessional competence according to his or her own special career aims in the legal profession. Since no prescriptive curriculum is specified, the student can combine several areas and courses, usually from as many of the following as possible: communication theory, practice and literature, English composition and literature, history, political science, behavioral sciences, humanities, comparative arts, economics, philosophy. Curricula and activities which develop the capacity for independent thought are strongly recommended.

## General Requirements for All InCo Majors

1. INCO 101 and INCO 103
2. Five hours of English selected from the following courses: 171A-J and 172.
3. *Organizational Communication Majors*  
ENG 305 or MGT 325  
Nine hours in each of two of the following groups:  
Humanities  
Natural Sciences  
Social Sciences
4. *General Communication Majors*  
Nine hours in two of the following groups and at least one course in three of the four groups:  
Humanities  
Mathematics  
Natural Sciences  
Social Sciences
5. *General Speech with Certification Majors*  
Forty-five hours of general education distributed to include at least two courses in each of the following fields:  
Science and mathematics (one course in each)  
Comparative arts and/or philosophy  
Social science (PSY 101 required and can be counted as one of two courses)  
English and/or foreign language (INCO 103 required)

## Major in General Communication

Maximum freedom of choice in course selection is the primary feature of this major. Its aim is development of a broadly trained student in the liberal arts — humanistic aspects of interpersonal communication. Majors may prepare for careers in law, industry, theology, higher education, etc.

- A Required courses—29 hours  
Four courses are specifically required  
INCO 101 Fundamentals of Speech  
INCO 103 Public Speaking  
INCO 107 Introduction to Language Behavior

INCO 205 Techniques of Group Discussion  
 INCO 215 Argumentation and Debate  
 INCO 220 Oral Interpretation  
 INCO 234 Introduction to Communication Theory  
 INCO 450 Introduction to Rhetorical Theory

B. Additional major courses: 11 hours

Student must select at least three hours in each of the following areas:

Public Address	Communication Theory
INCO 353A,B,C, or D	INCO 433
INCO 212	INCO 446
INCO 342	INCO 452
INCO 458	
INCO 460	Group Process
	INCO 210
	INCO 245
	INCO 404
	INCO 405

C. Students must take a concentration of at least 20 hours in one department other than InCo. Interdisciplinary concentrations may be used to meet this requirement with approval of the student's advisor and the director of the school.

D. General electives as necessary to complete minimum University requirement of 192 quarter hours for graduation.

### Major in General Speech with Certification

This major provides a program for students interested in high school teaching. The emphasis stresses a liberal arts education as related to interpersonal communication and professional preparation for state teaching certification.

This major provides two program options to students enrolled in the School of Interpersonal Communication: A communication comprehensive emphasis (90 quarter hours) or a speech emphasis (60 quarter hours). The comprehensive communication program will certify a student to teach speech, journalism, reading, and English, or any combination thereof in high school. The other programs will certify in speech only. For details of these programs, see the *College of Education* section of this catalog, or contact Director's Office, School of Interpersonal Communication, Kantner Hall.

### Major in Organizational Communication

This major provides a challenging program of study across the broad spectrum of human communicative behavior, emphasizing both theoretical bases and practical applications. It is designed for those students aiming for professional careers and administrative positions in business, educational, governmental, industrial, labor, or other organizational units.

A. Major Course Requirements

INCO 101 Fundamentals of Speech.....	3
INCO 103 Public Speaking.....	4
INCO 205 Group Discussion.....	4
INCO 210 Parliamentary Procedure.....	2
INCO 234 Intro. to Communication Theory.....	5
INCO 245 Intro. to Organizational Comm.....	4
INCO 301 Empirical Research.....	5
INCO 342 Communication and Persuasion.....	4
INCO 404 Prin. & Tech. of Interviewing.....	4
INCO 445 Practicum.....	5
INCO 446 Communication and the Campaign.....	5
INCO 495 Senior Project.....	4
INCO Electives (16 hours minimum)	

B. Related Courses and Proficiency Requirements

Completion of two related areas (minimum of 28 hours in each with at least 15 hours from courses numbered 200 or above) from single discipline or interdisciplinary studies such as:

Behavioral Sciences  
 Comparative Arts  
 Government and Political Science  
 Humanities

### Personnel Management and Administration

C. General electives as necessary to complete minimum University requirement of 192 quarter hours for graduation.

## SCHOOL OF RADIO-TELEVISION

Drew McDaniel, *Director*

The School of Radio-Television offers programs of study leading to bachelor's, master's, and doctoral degrees. The baccalaureate program is a professional degree program and is designed to prepare students for meaningful careers in all aspects of telecommunications. Areas given special attention are radio and television production, the business aspects of broadcasting, broadcast advertising, writing, broadcast news, nonbroadcast video, audio recording, broadcast criticism, international radio and television, broadcast law and regulation, radio and television performance, and educational broadcasting.

The classroom and laboratory experiences of the students are augmented by a variety of practical experiences including work with the academic production unit of the University-operated call channel, the All Campus Radio Network and the three University-owned and -operated stations: WOUB-AM, WOUB-FM, and WOUB-TV.

Affiliation with the National Association of Educational Broadcasters, the International Radio and Television Society, the Ohio Association of Broadcasters, National Association of Television Program Executives, and the National Association of Broadcasters provides opportunities for contacts and broad development in the broadcasting field.

Scholarships in the amount of \$495 per year are awarded to qualified first-year radio-television majors.

In addition, the following awards are available in radio-television:

1. The Jesse Zousmer Fund provides annual grants for students in broadcasting and news in the name of the alumnus and former head of ABC News.
2. The Richard Linke scholarship assists students in radio-television or related areas of the College of Communication.
3. Each year monetary awards for outstanding achievement are given to undergraduate majors.
4. The Outstanding Student Award is granted annually to the senior attaining the highest levels of academic achievement and extracurricular broadcast experience.
5. The Robert L. Coe Memorial Scholarship is awarded to a student who has interests in broadcast administration or engineering. Coe was a former professor in the school and a former vice president of ABC Television.

## REQUIREMENTS FOR BACHELOR'S DEGREE IN RADIO-TELEVISION

### General Requirements for All Majors

1. *Arts and humanities* — 20 quarter hours, including at least eight hours of 300-400 level courses. Courses may be elected in the following: art, art history, classical

languages, comparative arts, English, film, modern languages, music, philosophy, and theater.

2. *Social sciences* — 20 quarter hours, including at least eight hours of 300-400 level courses. Courses may be elected in the following departments: anthropology, economics, history, international studies, management, marketing, political science, psychology, or sociology.

3. *Communication sciences* — 20 quarter hours, including at least eight hours of 300-400 level courses. Courses may be elected in the following departments: computer science, visual communication, communication management, interpersonal communication, journalism, and linguistics.

4. *Mathematics and/or natural sciences* — 10 quarter hours. Courses may be elected in the following departments: astronomy, biology, botany, chemistry, geology, mathematics, physical science, physics, zoology, and geography courses relating to physical geography.

General Education requirements can be used to fulfill the above general requirements. With advisor's approval, courses may be selected from Afro-American Studies and University Professor offerings to fulfill general requirements.

5. *Radio-Television* — the following constitute the basic core courses required of all majors:

R-TV 106 Intro. to R-TV .....	4
R-TV 200A Brdcast. Wrng. & Prod. Planning .....	4
R-TV 200B Intro. to Radio Production .....	2
R-TV 200C Intro. to Television Production .....	2
R-TV 270 Brdcastng. & Pub. ....	4
R-TV 355 Brdcast. Programming .....	4
R-TV 453 Brdcast. Law & Regulations .....	4

## Sequence Requirements

Undergraduate radio-television freshmen and sophomores will be considered premajors. Generally, premajors are not permitted to enroll in radio-television courses above the 300 level. To be eligible to transfer from premajor status to one of the three major sequences described below, a student must (1) complete 90 quarter hours; (2) attain a C (2.0) average in the following five courses: R-TV 106, R-TV 200A, R-TV 200B, R-TV 200C, and R-TV 270; and (3) have a program of study which satisfies one of the following sequences as approved by the student's advisor:

### Comprehensive Sequence

This plan of study offers students a broad exposure to telecommunication, and also provides for the development of a specialization in one of a number of areas within the field. Plans of study are individually developed by students, in consultation with their advisors. The following is required of students in the sequence:

R-TV courses supporting program goals .....	24
Corollary courses supporting program goals .....	35

Program goals are jointly developed by student and advisor to provide adequate training in the specialization desired, and to ensure breadth of instruction in radio-television. Students should be prepared to transfer into this sequence early in their junior year.

### Professional Management/ Administration Sequence

Students will be selected for this sequence on a competitive basis. Applications for entry into this program are

accepted only in spring quarter each year.

This plan of study is aimed at providing an understanding of the managerial processes and knowledge which are basic to the development of managerial skills. The following courses are required:

R-TV 459 Audience Research .....	4
R-TV 460 Brdcast. Mgt. ....	4
R-TV 461 Electronic Media Mgt. I .....	4
R-TV 462 Electronic Media Mgt. II .....	4
R-TV electives with advisor approval .....	8

In addition to general requirements, at least 35 hours from the following: accounting, business administration, business law, computer science, economics, finance, management, marketing. Selections in this sequence must include ECON 101-102, MGT 300.

### Professional Broadcast Production Sequence

Students will be selected for this sequence on a competitive basis. Applications for entry into this program are accepted only in spring quarter each year.

This plan of study is aimed at providing advanced skills in radio or television production with special emphasis on the creative responsibilities of production-direction. The following courses are required:

R-TV 208 Technical Bases of R-TV .....	4
R-TV 413 Adv. Radio Prod. ....	4
OR	
R-TV 431 Dramatic & Documentary Wrng. ....	4
OR	
R-TV 452 TV Newsfilm Prod. & Edit. ....	3
R-TV 417 TV Prod.-Dir. ....	4
R-TV 418 Adv. TV Prod.-Dir. ....	4
R-TV electives with advisor approval .....	8

In addition to general requirements, at least 35 hours in the areas of theater arts, film, art, art history, comparative arts, dance, graphic design, music, photojournalism.

## Other Requirements and Standards

Freshmen are selectively admitted to the School of Radio-Television based on their academic record and activities. Those not admitted have the option to attend Ohio University and to transfer to radio-television at the end of their freshman year, provided the following conditions are met.

In order to transfer into radio-television, either from other institutions or within the University, students must have earned 48 quarter hours (32 semester hours) with a minimum g.p.a. of 2.5. In addition, such transfer students will be required to attain a C (2.0) average in the first 12 hours taken in radio-television in order to remain eligible to continue as majors.

Students transferring into the School of Radio-Television from another institution will be allowed to apply no more than 30 quarter hours of credit in broadcasting toward their degree requirements. Further, a minimum of 20 hours in radio-television must be taken at Ohio University.

Students are expected to demonstrate proficiency in typing and basic language skills.

No course which is selected to fulfill any requirement may be taken on a pass/fail basis by a radio-television major.

No course may be counted in more than one type of requirement. For example, a course used to meet a general requirement may not also be used to meet a sequence requirement.

## INSTITUTE OF VISUAL COMMUNICATION

The School of Journalism, in cooperation with the School of Art in the College of Fine Arts, offers a visual communication degree program with eight specialized sequences. Students can earn either a bachelor of science in journalism or a bachelor of fine arts degree.

The program is designed to provide students with realistic and thorough, broad-based, professionally oriented training in visual communication and journalism, while providing the necessary liberal arts and cultural background for an equally strong foundation.

Intensive training is offered in picture editing, photo communication for newspapers and magazines, photo illustration and advertising photography, multi-media, educational media, performing arts communication, medical and science illustration, and electronic visual communication (TV news).

### Goals of the Institute

The goals of the Institute of Visual Communication are (1) to equip students with the necessary skills to be successful in entry-level jobs in the media and the background and motivation to enable them to compete for eventual leadership roles in the field; (2) to provide assistance and professional guidance in visual communications to working photographers, editors and other personnel, newspapers, press services, magazines, broadcast news operations, industrial photographic departments, advertising and public relations firms and departments, trade associations, multi-media and educational media production units, and cultural and scientific visual communicators; (3) to set high standards for visual integrity and communication ethics, and (4) to foster and promote scholarly research.

The institute sponsors the Newphoto Conference for Editors, a pioneering picture-editing workshop for word-oriented newspaper editors, founded in 1970, and still the only program of its kind. Over the years, editors from 30 states, the District of Columbia, and three Canadian provinces have attended sessions on the Athens campus. In addition, the conference has been held in Los Angeles.

**Internships.** In an effort to provide practical training, students are expected to have at least one paid internship for a period of 10 weeks during their college careers. Any qualified student may compete for an internship. Many students have several internships before graduation. No credit is granted for internship work itself, but students earn credit for the internship-preparedness course.

In 1980, Ohio University visual communication students worked as photo interns on more than 40 newspapers and at *National Geographic* and two other magazines. Nine internships were with advertising studios. Many of the internships were in Ohio, the others were in Arizona, California, Florida, Georgia, Illinois, Indiana, Kentucky, Maine, Nevada, New York, Michigan, Missouri, North Carolina, Pennsylvania, South Carolina, Texas, Virginia, Washington, West Virginia, Wyoming, and Wisconsin.

Many Ohio University visual communication students are active members of the Ohio News Photographers Association and student members of the National Press Photographers Association. All students are encouraged to enter newphoto competitions for which they may be

eligible. Many Ohio University students have been successful in these competitions in recent years. They have done particularly well in the annual William Randolph Hearst Foundation photojournalism competition which is open to any student taking photojournalism courses in any of the more than 70 accredited schools of journalism. In the last nine years in the Hearst competition, Ohio University students have won first place four times, plus one second, one third, one fourth, one fifth and one ninth place.

### General Requirements

To meet the accrediting standards of the American Council on Education in Journalism, three-fourths of the student's program should consist of courses in the liberal arts and sciences and one-fourth in professional courses in journalism, visual communication, and photography.

Visual communication students earning the journalism degree at Ohio University meet this standard by fulfilling general and specialization area requirements. The general requirements provide a liberal arts and sciences core for all students with the following courses:

Political science (2 qtrs)  
Sociology or anthropology (2 qtrs)  
Economics (2 qtrs)  
Psychology (1 qtr)  
History (3 qtrs)  
English (2 qtrs, one must be English composition)

*Plus one of the following:*

Science (3 qtrs of one science in accordance with Arts and Sciences catalog description)  
Language (3 qtrs basic sequence or 1 qtr advanced)  
Computer science, quantitative methods, statistics (3 qtrs)  
Philosophy (2 qtrs, one of which must be logic)

### Specialization Area Requirements

To the liberal base, which generally is the focus of the freshman year, visual communication students working towards a journalism degree add courses in desired areas of specialization, meeting the requirement by completing any one of three options:

1. a minimum of 36 hours in advanced courses in a single department within the College of Arts and Sciences (usually structured in accordance with the major requirements of the selected department),
2. a minimum of 18 approved hours in each of two departments in Arts and Sciences.
3. a minimum of 18 approved hours in one Arts and Sciences department and 18 approved hours in any other series of related courses except journalism, radio-television, and fine arts photography.

Additional nonjournalism courses are required in some visual communication sequences. No course may be counted for more than one type of requirement. For example, a course used to meet a general requirement may not also be applied to a specialization area or sequence requirement.

To assure the liberal stress of the overall program, the professional content of the B.S.J.-visual communication degree is limited to one-fourth of the 192 hours required for graduation. Credits in all courses in journalism, radio-television, visual communication, and photography should total at least 45 hours and not more than 55 hours. All professional hours beyond 55 must be compensated for by nonprofessional hours over the required 192-hour total. Nonjournalism courses which are required in sequences are not counted as part of the 45-55 total professional hours.

## Visual Communication Core Requirements

All visual communication journalism majors complete a basic core of 16 courses totaling 60-61 hours. These are:

ART 100 Visual Art	3
ART 101 2-Dimen. Design	4
ART 102 3-Dimen. Design	4
OR	
ART 151 Intro. to Graphic Design	4
AH 237 History of Photog.	3
VICO 120 Intro. to Vis. Comm.	4
VICO 121 Deliv. Syst.	4
VICO 122 Vis. Comm. Prac.	4
JOUR 221 Graphics	5
JOUR 231 News Rptng.	4
JOUR 250 Advert. Prin.	5
JOUR 325 Photojour.	3
JOUR 333 News Editing	4
JOUR 335 Pict. Editing	3
JOUR 411 Comm. Law	4
JOUR 412 Mass Med. & Soc.	3

Plus a choice of one of the following:

JOUR 331 Rptng. Contem. Issues	3
JOUR 363 Review & Crit.	3
JOUR 441 Mag. Feature Wrting.	4
JOUR 464 Rptng. Pub. Affairs	3
JOUR 465 Editorial Page	3

The art and art history courses do not count towards the 55-hour limit as professional courses.

## Standards

A grade of C or better is required in JOUR 221, 231, 333, 411, and 412.

1. To qualify to take JOUR 231, students must first pass an English proficiency examination with a grade of at least 75. Any student who fails to pass on the first effort will be permitted to retake the exam later. Passing scores on retake examinations are 75 for sophomores and 80 for juniors and seniors.
2. To qualify for admission to JOUR 231 students must achieve at least 25 words per minute on a typing examination. This exam is administered on the first day of the JOUR 231 class.
3. Students must earn a grade of at least C in JOUR 221, 231, 333, 411, and 412 to graduate.
4. Students must pass a portfolio review at the end of 300-level photojournalism courses to qualify for advancement to visual communication sequences.

## Visual Communication Sequence Requirements

### Picture Editing

JOUR 333* News Edit	4
JOUR 336 Adv. Pict. Edit	3
JOUR 412* Mass Media & Soc.	3
Journalism, photo communication or illustration, R-TV, or graphic design upper-division courses as electives	14
total sequence requirements	24

\* These courses are included in the journalism visual communication core

### Photo Communication

JOUR 326 Adv. Photojournalism	3
OR	
ART 398	5
JOUR 327 Color News Photo	3
OR	

ART 399	5
ART 494 Adv. Publ. Photo	5
ART 499 Adv. Photo. Illus.	5
Journalism, photo communication or illustration, R-TV, or graphic design upper-division courses as electives	4-8
total sequence requirements	24

### Photo Illustration

JOUR 327 Color News Photography	3
OR	
ART 399	5
ART 497 Photo Illustration	5
ART 498 Photo Illustration	5
Journalism, photo communication or illustration, R-TV, or graphic design upper-division courses as electives	9-11
total sequence requirements	24

### Multi-media

JOUR 327 Color News Photo	3
OR	
ART 399	5
ART 494 Adv. Publ. Photo	5
ART 499 Photo. Illus.	5
Journalism, photo communication or illustration, R-TV, graphic design, film, or education upper-division courses as electives	9-11
total sequence requirements	24

### Educational Media

EDAV 480 Intro. to Educ. Media	4
EDAV 481 Prod. of Instruct. Mat.	3
JOUR 327 Color News Photo	3
OR	
ART 399	5
FILM 340 Film Techniques	3
ART 499 Photo Illus.	5
Journalism, photo communication or illustration, R-TV, graphic design, film, or education upper-division courses as electives	4-6
total sequence requirements	24

### Performing Arts Communication

JOUR 326 Adv. Photojournalism	3
OR	
ART 398	5
JOUR 327 Color News Photography	3
OR	
ART 399	5
Theater technical production or stagecraft course	6
Journalism, photo communication or illustration, R-TV, dance, graphic design, film, or theater upper-division courses as electives	8-12
total sequence requirements	24

### Medical or Science Illustration

JOUR 326 Adv. Photojournalism	3
OR	
ART 398	5
JOUR 327 Color News Photography	3
OR	
ART 399	5
JOUR 492 Science & Med. Rptng.	3
ZOOL 480 Microscopy & Photomicrography	3
Journalism, photo communication or illustration, R-TV, graphic design, or film upper-division courses as electives	8-12
total sequence requirements	24

### Electronic Visual Communication

R TV 106 Intro. to R-TV	4
R TV 452 TV Newstilm	3
OR	
JOUR 452 TV Newstilm	3
FILM 340 Film Techniques	3



FILM 361 Motion Picture Prod. I .....	5
FILM 362 Motion Picture Prod. II .....	5
Journalism, photo communication or illustration, R-TV, graphic design, or film upper-division courses as electives .....	8
total sequence requirements	24

## CENTER FOR COMMUNICATION MANAGEMENT

Byron T. Scott, *Acting Director*

### Bachelor of Science in Communication Management

At the time of its founding in the fall of 1980, the center was the first program of its type in Ohio and only the second in the United States at the baccalaureate level. It is a multi-disciplinary major with students taking courses in nine other schools and departments, in addition to the center. The program was designed with the assistance of the International Communications Association.

### Purposes and Objectives

The purposes of the Ohio University Center for Communication Management are to provide academic studies and research for the training of professionals in the modern field of point-to-point telecommunications. Such communication managers help design, supervise, and operate specialized communication systems in private industry, common carriers, and the government.

Until the 1970s, professionals in the field were trained primarily within their companies. But with the rapid expansion of technology and its applications, telecommunications began to ask for help from higher education. The Ohio University program is the result of five years of consultation and planning with experts at both the academic and applied levels.

The curricular program is based in the philosophy that the communication manager must have a broad basic knowledge and skill in such diverse areas as technology, business, and written and verbal communication. Students take more than three-fourths of their courses in other departments.

While working toward their degrees, students are encouraged to gain practical experience through field studies, practica, and internships. The Communication Management Laboratory, Telecommunications Center, and other facilities contain equipment to provide opportunities to observe and use communication systems: voice, image, and data or message transmission.

### Curricula and Requirements

A communication manager is asked to have reasonable familiarity with a number of concerns, both general and technical. The communication management major requires a multi-disciplinary approach involving nine participating schools and departments, in addition to coursework offered by the center itself.

To remain active in the communication management major, a student must maintain a 2.0 average in all re-

quired courses, not solely those labeled as communication management.

Requirements are structured to simultaneously meet the University's General Education policy, as well as the needs of the major field.

The requirements, with the assigned quarter credit hours, follow. In instances where a specific course is not designated, any course within the subject department will fulfill the requirement.

A. General Education	
ECON 101, 102 .....	8
English (Composition) .....	10
History .....	12
Logic (PHIL 120) .....	4
Political Science .....	8
PSY 101 .....	5
Sociology .....	10
Technical Writing (ENG 305) .....	5
	<u>62</u>

B. Technical and Business	
ACCT 101, 102 .....	8
CS 201, 202 .....	10
ET 360 .....	3
FIN 325 .....	4
IT 337 .....	3
MGT 200, 430, 435 .....	12
MKT 301 .....	4
	<u>44</u>

C. General Communication	
INCO 101 or 103, 205, 245, 405, 445 .....	19-20
JOUR 221 .....	5
R-TV 200A, 200C, 208, 486 .....	14
VICO 121 .....	4
	<u>42-43</u>

D. Communication Management	
CO 100, 269, 369, 462, 469 .....	20

E. Electives	
As recommended by advisor .....	23
	<u>192</u>

Although a number of variables might affect the order in which an individual student would take the required and recommended courses, a typical year-by-year schedule might work as follows:

First Year		Second Year	
ECON 101, 102 .....	8	Political Science .....	4
English (comp.) .....	5	History .....	4
PHIL 120 .....	4	Sociology .....	5
PSY 101 .....	5	Computer Science .....	10
Sociology .....	5	MGT 200 .....	4
ACCT 101, 102 .....	8	Interpersonal	
VICO 121 .....	4	Communication .....	4
CO 100 .....	4	Journalism .....	5
Electives .....	5	Radio-Television .....	4
	<u>48</u>	Communication	
		Management .....	4
		Electives .....	4
			<u>48</u>

Third Year		Fourth Year	
English (Comp.) .....	5	History .....	4
History .....	4	Technical Writing .....	5
Political Science .....	4	Management .....	8
ET 360 .....	3	Interpersonal	
IT 337 .....	3	Communication .....	8
FIN 325 .....	4	R-TV 486 .....	4
MKT 301 .....	4	Radio-Television .....	4
Interpersonal		Communication	
Communication .....	8	Management .....	8
Radio-Television .....	2	Electives .....	7
Communication			<u>48</u>
Management .....	4		
Electives .....	7		
	<u>48</u>		

## Course Descriptions (Proposed)

The major requirements for the bachelor of science in communication management include 20 hours in the subject area, as well as courses in several other participating schools and departments (See Curricula and Requirements). All majors must take CO 100, 269, 369, 462 and 469. Nonmajors must complete CO 100 before taking any other course in communication management.

### **100 Introduction to Communication Management (4)**

General principles and techniques of point-to-point telecommunications in private and public settings. Includes brief history of field and general introduction to systems employed (telephone, facsimile, computer, etc.). *NOTE: This course has been approved by the University Curriculum Council.*

### **269 Management of Data and Voice Networks (4)**

Principles of designing and operating basic data and voice networks for business, government and telephone companies. Includes traffic studies, queuing techniques, use of Erlang tables. Prerequisite: 100

### **369 Economic and Regulatory Considerations in Communication Management (4)**

Study of legal and regulatory trends as well as costs of telecommunications systems. How movement of information across state and international lines are controlled. Application of cost/benefit analyses. Prerequisite: 100

### **462 Internship in Communication Management (4)**

Conference course for students who have completed internship with an approved company, agency, or organization. Comprehensive analytical report required. Prerequisite: 100 and perm before beginning internship.

### **469 Management of Communication Resources (4)**

A case study approach to problem-solving in the field. Emphasis will be on how actual communication managers do their jobs. Extensive problem paper required. Prerequisite: 100, 269, 369

### **490 Special Studies in Communication Management (1-4, variable)**

In-depth studies of specialized aspects of the field, supervised by a sponsoring faculty member. Repeatable up to 12 hours. Prerequisite: 100 and approved written proposal.

## College of Education

Allen Myers, *Dean*

Fred B. Dressel, *Associate Dean*

The College of Education is a professional college and therefore its major goal is the preparation of persons to become professionals in the educative process both in and out of school settings. A wide range of programs is offered for teaching in elementary and high schools, and other educational positions. The college provides graduate study in a wide range of professional education fields.

All undergraduate programs include a broad base of general education, intensive preparation in the subject matter field, and professional emphasis and focus which combine educational theory with actual practice in meeting the responsibilities of the profession. Each program is thus designed to prepare students to enter professional positions possessing the liberal background, functional knowledge, and professional understanding and skill which are required for professional success.

The College of Education is accredited by the North Central Association and the National Council for Accreditation of Teacher Education and is approved for teacher training by the State Department of Education of Ohio.

### BACHELOR OF SCIENCE IN EDUCATION

The degree, bachelor of science in education, represents the completion of a program designed to develop in the student competence in three areas: the broad awareness of the principal academic fields developed through a true university education; the deeper study of the particular areas in which the student seeks the undergraduate mastery necessary for teaching and/or applying these subjects; and the understanding of the professional responsibilities of education and demonstrated skill in meeting them through extensive field experience.

The degree is granted upon completion of the general graduation requirements of the University, including a minimum of 192 quarter hours with a point-hour ratio of 2.0 (C) on all hours attempted, but including only the final hours and points in repeated courses, and in addition a 2.0 point-hour ratio in the major field.

Besides these general University requirements each student must complete the requirements established for the program he or she is following.

NOTE: For pass/fail option, see the *Credit and Grading* section of this catalog.

A student who plans to teach in the elementary grades registers in the College of Education. The curricula offered by the College of Education include the requirements of the State Department of Education and qualify a student to obtain a provisional certificate to teach in the elementary grades and kindergarten, depending upon the student's preparation.

A student who plans to teach high school academic or special subjects ordinarily enrolls in the College of Education. The curricula of the College of Education include the requirements of the State Department of Education, and qualify the student to obtain a provisional certificate to teach the subjects indicated on the certificate.

A student who plans to teach in special education classrooms registers in the College of Education. The curricula offered by the College of Education include the requirements of the State Department of Education and qualify a student to obtain a provisional certificate to teach in educable mentally retarded and learning disabled classrooms.

### REVISED PROGRAMS

All undergraduate teacher education programs at Ohio University have been revised recently to conform to new standards for certification issued by the State Department of Education of Ohio. The new programs and courses are included in this bulletin.

These new programs and courses apply to all students entering Ohio University in the 1981-82 academic year and, in general, to students who had earned less than 60 quarter hours of credit by the beginning of fall quarter, 1980. Students with questions about their program requirements may contact their advisors and/or the Student Personnel Services Office; 124 McCracken Hall; Ohio University; Athens, Ohio 45701 (phone: 614/594-5917).

### SELECTIVE ADMISSION AND RETENTION

The college has a program of selective admission and retention that applies to all students who intend to com-

plete the teacher preparation program through Ohio University. The purpose of the selective admission and retention program is to provide both the student and the college with an opportunity to assess each student's capabilities as a prospective teacher. There are three selection phases in this program, two of which are described below and the third phase is detailed under Student Teaching.

A complete description of the selective admission and retention policies and procedures is available from Student Personnel Services, 124 McCracken Hall.

### Admission to Professional Education

Students must be admitted to professional education prior to taking any of the following courses: elementary education courses—any EDEL courses numbered 300 or above; special education courses—any EDSP courses in Block II or above; secondary education—any EDSE courses.

Application for admission to teacher education should be made during the third quarter of the freshman year. The criteria which students must meet by the end of the quarter in which they apply are the following:

1. Completion of 45 quarter hours of credit with an overall grade-point average of 2.00.
2. A 2.0 grade-point average and no grade below a C- is acceptable towards completion of the following courses:
  - A. PSY 101—General Psychology
  - B. Tier I—Freshman composition requirement
  - C. INCO 101—Fundamentals of Speech or INCO 103—Public Speaking (For speech and hearing therapy majors only, HSS 107—Voice and Articulation—is the required course in this category; and INCO 101 and 103 are optional.)
  - D. Tier I—Quantitative skills requirement
3. Satisfactory performance on the Speech Proficiency Examination which is offered through the Speech and Hearing Clinic, Lindley Hall, on the Athens campus or by approved individuals at the branch campuses.

### Admission to Advanced Standing in Professional Education

Students must be admitted to advanced standing prior to taking any of the following courses: elementary education courses—any EDEL courses numbered 300 or above; special education courses—any EDSP courses in Block III or above; secondary education—any EDSE courses numbered 300 or above.

Application for advanced standing in professional education should be made at the end of the third quarter of the sophomore year. The criteria which students must meet by the end of the quarter in which they apply are the following:

1. General requirements
  - A. Completion of 90 quarter hours of credit with an overall g.p.a. of 2.25
  - B. Satisfactory reports from:
    - (1) Hudson Health Center
    - (2) Student Judiciary
2. Specific requirements for elementary education
  - A. Completion of the following courses with a 2.30 g.p.a. and a minimum grade of C- in each:
    - (1) EDCI 275 or PSY 275
    - (2) EDCI 275L
    - (3) EDEL 200 (or PSY 173 or HECF 160)
    - (4) EDSP 271
    - (5) EDSP 160

- B. A satisfactory recommendation from the student's advisor and from a faculty person in education who has been an instructor of the student. Recommendation forms will be available at the time of application for admission to advanced standing.
3. Specific special education requirements (EMR/LD)
  - A. Completion of all courses in Blocks I and II with a 2.30 g.p.a.
  - B. Each EDSP course in Blocks I and II must be completed with a grade of C- or better.
  - C. A satisfactory recommendation from the faculty members coordinating Blocks I and II based upon review by all the faculty teaching in each block.
4. Specific requirements for secondary and special fields education
  - A. Completion of the following courses with a g.p.a. of 2.30 and a minimum grade of C- in each.
    - (1) EDSE 250
    - (2) EDSE 250L
    - (3) EDSE 270
    - (4) EDSE 270L
    - (5) EDCI 275 or PSY 275
  - B. A 2.30 accumulative g.p.a. in each teaching field for which certification is being sought.
  - C. A satisfactory recommendation from:
    - (1) A faculty member in the student's major teaching field who has had the student in class.
    - (2) A faculty member in secondary education who has had the student in class.
5. Specific requirements for speech and hearing therapy
  - A. Completion of the following courses with a g.p.a. of 2.30 and a minimum grade of C- in each:
    - (1) EDCI or PSY 275
    - (2) EDCI 275L
    - (3) EDSP 270
    - (4) EDSP 271 or PSY 376
  - B. A 2.30 accumulative g.p.a. in all hearing and speech science courses completed.
  - C. A satisfactory recommendation from:
    - (1) The faculty member who taught the student in HSS 240, Practicum
    - (2) The faculty member who taught the student in EDSP 270, Classroom Management of Children.

## SCHOOL OF CURRICULUM AND INSTRUCTION

The School of Curriculum and Instruction comprises three major academic areas — elementary education, secondary education, and special education, and courses in educational media, international and comparative education, and educational foundations. The school provides the opportunity for students admitted to teacher education to pursue undergraduate courses leading to teacher certification in the State of Ohio. Listed below are program descriptions and course requirements for each of the certification patterns offered.

A junior or senior who has a 3.0 accumulative grade-point average and is able to schedule 15 to 18 hours of independent study in the department may be eligible for departmental honors. Honors work extends beyond the required teacher-education course sequences.

## ELEMENTARY EDUCATION PROGRAM

In order to receive a B.S.Ed. degree and certification in elementary education students must complete the total program in elementary education. Upon completion of the program students are eligible for a four-year provisional teaching certificate for teaching in grades one to eight. Kindergarten certification may also be obtained by completing the necessary kindergarten requirements as specified below.

### General Education

PSY 101 Gen. Psych.	5
English	14

Freshman and junior English composition courses taken to satisfy the University English composition requirement (See English Composition Requirement in the Graduation Requirements section of this catalog) may be used toward completion of these hours.

Required: INCO 101 or 103 Fund./Pub. Speaking	3-4
LING 270 Nature of Lang.	5
EDEL 321 Children's Lit.	3
EDEL 321L Field/Clinical Exp.	1

ART 360 Art for Elementary Teachers	6
MUS 160 Music Fundamentals	3
MUS 161 Mus for Clsrm Teachers	3
Natural science	12

All students must complete at least 12 quarter hours of science including at least one course in biological science and one course in physical science. Recommended choices include BOT 101 or ZOOL 101, BOT 102, physical science with a lab. Other possibilities include any courses in zoology, botany, chemistry, physics, and geology. All courses taken to complete this requirement must contain a laboratory component.

Mathematics	9
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MATH 120 and 121 are recommended; however, any mathematics courses numbered above 120 and equaling nine quarter hours except MATH 151 would be acceptable.

Social Studies	27
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Each student is required to complete at least 27 quarter hours of social studies. Social studies is defined as any history, political science, economics, sociology, anthropology, social welfare, geography, and economic education course.

Specific requirements are the completion of at least one course in American history or American government, and GEOG 121 Cultural Geog.

Physical Education	
HPER 202 Personal & Community Health	4
HPER 270 Tchng. Phys. Ed.	3

No more than six hours of HPER activity courses may be counted toward the degree and none count in general education.

Students must also complete Ohio University's program of general education (see General Education section of this catalog) and are urged to consult with their advisors to plan to meet both sets of general education requirements.

### Professional Sequence

The following professional courses are required of all elementary education majors. To be eligible to enroll in these courses students should note the prerequisites in the course description section of this catalog.

EDEL 200 Studies of Children	4
EDSP 271 Intro Excep Children	3
EDSP 160 Field Exp Spec Educ.	1

EDCI 275 Lrng Process Classrm or	
PSY 275 Educational Psych.	5
EDCI 275L Field/Clinical Exper	1
EDEL 310 Teach Lang Arts Elem Sch	3
EDEL 310L Field/Clinical Experience	2
EDEL 311 Teach Read Elem Sch	4
EDEL 311L Field/Clinical Experience	1
EDEL 330 Teach Math in Elem Sch K-3	2
EDEL 330L Field/Clinical Experience	1
EDEL 331 Teach Math in Elem Sch 4-8	2
EDEL 331L Field/Clinical Experience	1
EDEL 340 Teach Science Elem Sch	4
EDEL 350 Teach Soc Studies Elem Sch	3
EDEL 350L Field/Clinical Experience	1
EDEL 372 Managing Elem Classroom	2
EDEL 460 Child and the Curriculum	4
EDM 480 Intro to Educ Media	4
EDCI 401 Advanced Field Exp-Urban	2

**Kindergarten-Primary Sequence.** Students seeking kindergarten-primary certification should complete the regular elementary education program plus EDEL 306 (5 hours), specialized course in theory, materials, and methods of kindergarten education; EDEL 306L (1 hr.), Clinical Experience; EDEL 461 (6 hrs.), Student Teaching in Kindergarten. Students seeking this certification will complete one quarter of student teaching in an elementary situation followed by an additional part-time student teaching assignment in a kindergarten.

**20-Hour Concentration.** A 20-quarter-hour concentration is required. This concentration may be in any department outside the College of Education. The 20 hours are to be beyond any of the general education requirements. For example, if a student wishes to complete the concentration in psychology, he or she would have to complete 20 hours beyond PSY 101 and PSY 275 which are already required. A student may not combine several fields to make a concentration. In other words, the 20 hours must be in one field or one department. The only exception is in the case of a person wishing to concentrate in science. He or she may combine several sciences to complete the concentration. Note that special education can NOT be used as a 20-hour concentration.

### Professional Laboratory Experience

EDPL 461 and 462 Stu. Tchng. in Elem. School	7 + 6
EDPL 465 Stu. Tchng. Seminar	3

These three courses are taken concurrently in one quarter and constitute the student teaching requirement. Additional student teaching is required of students seeking kindergarten certification. A person should make an application for student teaching by December 1 of the year prior to the year in which student teaching is to be taken. For example, anyone doing student teaching during any of the three quarters of the school year 1982-83 should apply by December 1, 1981. For further information contact the Field Experience Office.

## ELEMENTARY EDUCATION/ EARLY CHILDHOOD

The purpose of this program is to prepare persons to meet State of Ohio teacher certification requirements as elementary teachers and to be prepared to be teachers in preschool. At the present time, there is no teaching certificate for preschool; however, such certification is being discussed and may be enacted in the near future.

The preschool aspect of this major meets what is currently being discussed as possible certification requirements.

The current program in preschool teaching is part of the School of Home Economics and the current program in elementary education is part of the School of Curriculum and Instruction. This program would provide for each student to choose the school and college in which he or she wishes to enroll; therefore, a student could earn either a bachelor of science in home economics or a bachelor of science in education. Either way the student chooses, he or she would follow the same program and earn the same certificate.

Students are advised that the elementary education/early childhood program is a *dual concentration* and so is likely to require at least one additional quarter beyond the 12 quarters ordinarily needed for a bachelor's degree. Students in the program should schedule carefully and work closely with their advisors.

## General Education

Students must also complete Ohio University's program of general education (see General Education section of this catalog) and are urged to consult with their advisors to plan to meet both sets of general education requirements.

PSY 101 General Psych	5
ART 360 Art for Elementary Teachers	6
English	22-23
Freshman composition requirement	5
Junior composition requirement	5
INCO 101/103 Fund./Public Speaking	3-4
LING 270 Nature of Language	5
EDEL 321 Children's Literature	3
EDEL 321L Field/Clinical Experience	1
MUS 160 Music Fundamentals	3
MUS 161 Music for Classroom Teachers	3
OR MUS 162 Music in Early Childhood	3
Natural Science	13
BOT/ZOOL 101 Principles of Biology	5
ZOOL 103 Human Biology	4
One physical science with laboratory component	4
Mathematics	9-10
MATH 120 Elem. Topics in Math	5
MATH 121 Foundations of Math	5

The two courses above are recommended; however, any mathematics courses numbered above 120 and equaling nine quarter hours would be acceptable (except MATH 151).

Social Sciences	27
SOC 101 Intro to Sociology	5
ECON 101 Prin. of Econ	
OR ECED 346 Econ. in Curriculum	3-5
GEOG 121 Elements of Cultural Geog	4
US history or political science	4
HECF 360 Human Sexuality	3
SOC 201 Social Problems	
OR SOC 223 American Society	4
HECF 371 Family Development	3
Physical Education	7
HPER 270 Tchng of Phys. Ed	3
HPER 202 Persnl & Comm Health	
OR HPER 227 First Aid	4

## Major Requirements

HECF 160 Intro to Child Development	
OR EDEL 200 Studies of Children	
OR PSY 173 Child & Adol Psych	4
EDSP 271 Intro Except Children	3
EDSP 160 Field Exp Spec Education	1
EDCI 275 Lrng Process in the Classroom	
OR PSY 275 Educational Psychology	5
EDCI 275L Field/Clinical Exper	1

EDEL 310 Teach Lang Arts Elem Sch	3
EDEL 310L Field/Clinical Experience	2
EDEL 311 Teaching Reading Elem Sch	4
EDEL 311L Field/Clinical Experience	1
EDEL 330 Teach Math in Elem Sch K-3	2
EDEL 330L Field/Clinical Experience	1
EDEL 331 Teach Math in Elem Sch 4-8	2
EDEL 331L Field/Clinical Experience	1
EDEL 340 Teach Science Elem Sch	4
EDEL 350 Teach Soc Studies Elem Sch	3
EDEL 350L Field/Clinical Experience	1
EDEL 372 Managing Elem Classroom	2
EDEL 460 Child and the Curriculum	4
EDM 480 Intro to Educ Media	4
EDCI 401 Advanced Field Experience-Urban	2
EDEL 306 Kindergarten Education	5
EDEL 306L Field/Clinical Experience	1
HECF 361 Prin of Preschool Guidance	4
EDGS 410 Human Relations	3
HECF 463 Preschool Administration	5
HECF 363 Creative Exper with Preschool Child	
OR HECF 364 Premath & Sci-Young Children	4
HECF 462 Readings in Child Development and/or	
Family Living A, B, C (Choose 2)	4
HEFN 232 Infant and Child Nutrition	
OR HEFN 128 Intro to Nutrition	3-4

## Professional Laboratory Experience

EDPL 461 and 462 Stu. Tchng. in Elem. School	7 + 6
EDPL 465 Stu. Tchng. Seminar	3

These three courses are taken concurrently in one quarter and constitute the student teaching requirement. A person should make an application for student teaching by December 1 of the year prior to the year in which student teaching is to be done. For example, anyone doing student teaching during any of the three quarters of the school year 1982-83 should apply by December 1, 1981. For further information contact the Field Experience Office.

HECF 464 Nursery School Practicum	6
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Students must sign up with the director of the Child Development Center at least one year in advance.

## Procedures for Transferring from One Type of Certificate to Another

### 1. Elementary to High School

The holder of a standard elementary teacher's certificate may obtain a high school teacher's certificate by completing the teaching field requirements and a methods course for teaching at the secondary level.

### 2. High School or Special to Elementary (Retraining)

The holder of a provisional, professional, or permanent high school or special teacher's certificate may obtain a certificate valid for elementary teaching upon submitted evidence of the satisfactory completion of the following coursework in elementary education:

- Purposes and practices of the elementary school — EDEL 460
- Methods of teaching reading — EDEL 310, 310L, 311, 311L
- Methods of teaching arithmetic — EDEL 330, 330L, 331, 331L
- Child psychology — EDEL 200

The retraining certificate may be converted into a provisional elementary certificate with the completion of additional hours from specific courses in English, music, health, and physical education. A course in American history or political science and biology or physical science must complete deficient areas before application is made

for the standard elementary certificate. The retraining certificate is valid for four years and may not be renewed.

## SECONDARY EDUCATION PROGRAMS

### Professional Requirements (35-38 hours)

EDCI 275 Learning Process in the Classroom or PSY 275—Educational Psychology .....	5
EDSE 250 Analysis of Teacher Characteristics and Teaching Tasks .....	4
EDSE 250L Field Experience .....	2
EDSE 270 Studies of the Learner: Devel. & Exceptionalities ..	3
EDSE 270L Field Experience .....	1
EDSE 351 Instruc. Proc. & Curriculum .....	5
Methods in Major Field .....	3-6
(If a methods professor does not require and certify 30 clock hours of field, laboratory, and clinical experience, students must also register for EDPL 360, Field Experience in El- ementary or Secondary Schools, to obtain the required field contact hours.)	
EDM 480A Intro. to Educational Media .....	2
EDCI 401 Advanced Field Experience—Urban .....	2
EDSE 420 Teaching Reading as an Instructional Skill .....	4
EDSE 420L Field Experience .....	1
EDCI 480 Teacher, School, and Society .....	3

Students are urged strongly to preregister for their professional courses so that proper field experience placements in their major area can be identified ahead of time. Students seeking to add L (field experience) courses after a quarter begins may be required to wait until a field placement is open.

### Professional Laboratory Experience

EDPL 463 and 464 Stu. Tchng. in Second. Schools (EDPL 461 may be substituted for EDPL 464 where appropriate) .....	13
EDPL 465 Stu. Tchng. Seminar .....	3

These three courses are taken concurrently in one quarter and constitute the student teaching requirement. A person should make an application for student teaching by December 1 of the year prior to the year in which student teaching is to be done. For example, anyone doing student teaching during any of the three quarters of the school year 1982-83, should apply by December 1, 1981. For further information contact the Field Experience Office.

### General Education

All students in secondary academic or special fields in teacher education (except home economics education) must complete 45 hours of general education courses in order to be eligible for graduation with a B.S.Ed. or teacher certification or both.

Students must also complete Ohio University's program of general education (see General Education section of this catalog) and are urged to consult with their advisors to plan to meet both sets of general education requirements.

The breakdown of these general education requirements is as follows:

#### 1. Science and Mathematics

Each student is required to complete at least one course in science and one course in mathematics. Appropriate science courses are: astronomy, chemistry, physics, botany, zoology, physical science, geology, and PSY 226, 312, and 314. Any course in the mathematics department except 011, 032, 109A, 109B, 320, and 420 is acceptable for the mathematics requirement. Also, PSY 121 counts toward the

mathematics requirement. Computer science courses do not satisfy this requirement.

#### 2. Comparative Arts and/or Philosophy

Each student is required to complete at least two courses in this area. The two courses need not be in one field. Possibilities include any courses in the Philosophy Department; Comparative Arts Department; HUM 107, 108, 109, 307, 308, and 309; theater history courses; Art History Department; Art Department except for ART 360, 460, 461, 462; School of Music courses except for music education courses, music therapy courses, and the one- or two-hour participation courses.

#### 3. Social Studies

Each student is required to complete at least two courses in social science. The two courses need not be in the same field. PSY 101, which is required, is included as one of the social science courses. Other possibilities include any course in anthropology, economics, economic education, history, political science, sociology, social work, geography, and psychology, EXCEPT PSY 275, 121, 226, 312, and 314.

#### 4. English and/or Foreign Language

Each student is required to complete at least two courses in English and/or foreign language. Freshman and junior English composition courses taken to satisfy the University English composition requirement (See English Composition Requirement in the Graduation Requirements section of this catalog) may be used toward completion of these hours. The two courses need not be in the same field. INCO 103 is a specific requirement in this area and is counted as one of the two courses needed. Possibilities in this area include all English courses EXCEPT ENG 450A and 450B; any linguistics courses; any foreign language courses EXCEPT ML 410 and ML 445; HUM 107, 108, 109, 307, 308, and 309 (these humanities courses may NOT count toward the general education requirements in both the English and/or foreign language field and the comparative arts and/or philosophy field.)

If two courses in each of the above fields do not add up to a total of 45 hours, then a student must elect sufficient hours in one or a combination of the above areas to bring the total hours in general education to 45 hours.

If a student's major OR second teaching field is the same as one of the above areas, then ten hours of the major or minor may be counted toward the corresponding general education field as well as the major or minor. For example: If the student's major is English, ten hours of English may count toward the 45-hour total of general education and toward Field 4, above, which is English and/or Foreign Language.

No more than six hours of HPER activity courses may be counted toward the degree except for majors or minors in physical education and recreation, and none may count in general education.

## Major Requirements

### Art Education

Regardless of the college of the University from which a student graduates, if he or she wishes to be certified through Ohio University to teach art, the following program must be completed. The certificate for which this program prepares a person is a four-year provisional special field certificate in art which allows the holder to teach in grades kindergarten through 12, inclusive.

Majors are required to submit portfolios of studio work in May of the sophomore year.

#### Methods Courses:

ART 461 Art Exper. in Elem. School .....	3
ART 462 Tchng. in the Second. School .....	3



**Major Requirements: 100**

A. Select at least 76 quarter hours of studio courses including at least one course from each of the following three areas:

1. Two-dimensional art

Possibilities include courses in 2-D design, painting, prints, fibers, drawing, photography, and graphic design.

2. Three-dimensional art

Possibilities include courses in 3-D design, ceramics, sculpture, fibers, glass, relief prints, and silk screen.

3. Graphic communications

ART 151, 251, 254

Note that although a course may be counted in more than one area, a single course may not be used to fulfill more than one requirement. Art education courses (ART 360, 460, 461, 462) do not count toward any of the above areas.

B. Select 24 quarter hours of art history and/or comparative arts.

Possibilities include any courses in the art history or comparative arts departments (except CA 270, 271, 272; 321, 322, 323; 470, 471, 472, 473, 474, 475, 476, 477).

**Biological Sciences**

A student may earn either a B.S. Ed. in the College of Education or a B.A. or B.S. in botany or zoology in the College of Arts and Sciences and meet the teacher certification requirements. Regardless of the college of the University from which a student graduates, if he or she wishes to be certified through Ohio University to teach biology as the major field, the following program must be completed. The certificate for which this program prepares a person is a four-year provisional high school certificate which qualifies the holder to teach biology in grades seven through 12, inclusive.

Students are strongly urged to complete a second teaching field preferably in another science or in mathematics. Because of tool courses required in the major, the hours needed to complete a minor in math or the other science fields are approximately: Math — 20-25 hours, chemistry — 20 hours, earth science — 35 hours, general science — 12 hours, physics — 23 hours. Program sheets detailing specific course requirements in these minors are available in the Student Personnel Services Office, McCracken Hall.

**Methods Course:**

BOT 368 Tchng. of Biol. . . . . 4

**Major Requirements: 78-80**

1. Tool Courses (32-34)

CHEM 141, 142, 301, 302 . . . . . 16

MATH 163A and B OR 263A and B . . . . . 8-10

PHYS 201, 202 . . . . . 8

2. Required Courses (18)

ZOOL 150 OR BOT 110 . . . . . 6

BOT 111 . . . . . 6

ZOOL 151 . . . . . 6

3. Select one botany course and one zoology course from each of the following four areas and any additional biology electives if needed to complete 30 quarter hours

a. Structure of Organisms

BOT 307 Biol. of Algae & Mosses . . . . . 6

BOT 308 Morph. of Vascular Plants . . . . . 6

BOT 312 Plant Anat . . . . . 5

ZOOL 301 Human Anat . . . . . 6

ZOOL 303 Compar. Vertebrate Anat . . . . . 6

ZOOL 408 Histology . . . . . 6

ZOOL 430 Invertebrate Zool . . . . . 6

ZOOL 435 Gen. Entomology . . . . . 6

ZOOL 441 Parasitology . . . . . 6

b. Regulation and Maintenance of Organisms

BOT 424 Plant Physiology . . . . . 6

BOT 431 Cytology . . . . . 5

ZOOL 325 Gen. Genetics . . . . . 5

ZOOL 345 Human Physiology . . . . . 4

ZOOL 437 Medical Entomology . . . . . 4

ZOOL 448 Cell Physiology . . . . . 4

ZOOL 450 Prin. of Endocrinology . . . . . 4

ZOOL 460 Animal Physiology . . . . . 4

ZOOL 463 Cell Chem. . . . . 4

ZOOL 473 Animal Behavior . . . . . 5

c. Continuity and Variation in Organisms

BOT 248 Trees & Shrubs . . . . . 5

BOT 309 Plant Syst. & Ohio Flora . . . . . 5

BOT 310 Biol. of Fungi . . . . . 5

BOT 420 Fresh-water Algae . . . . . 5

ZOOL 271 Ornithology . . . . . 2

ZOOL 429 Marine Biol. . . . . 4

ZOOL 431 Limnology . . . . . 4

ZOOL 432 Field Hydrobiology . . . . . 3

ZOOL 439 Field Entomology . . . . . 5

ZOOL 442 Helminthology . . . . . 6

ZOOL 472 Herpetology . . . . . 5

ZOOL 474 Mammalogy . . . . . 6

ZOOL 479 Evolution . . . . . 4

d. Diversity and Interrelationships

BOT 247 Vegetation of North Am. . . . . 4

BOT 311 Biol. & Human Affairs . . . . . 3

BOT 425 Ecology . . . . . 5

ZOOL 390 Biol. & Future of Man . . . . . 5

ZOOL 375 Animal Ecology . . . . . 3

ZOOL 376 Ecology Lab . . . . . 2

ZOOL 477 Population Biol. . . . . 4

ZOOL 478 Population Biol. Lab. . . . . 3

**Bookkeeping — Basic Business**

Regardless of the college of the University from which a student graduates, if he or she wishes to be certified through Ohio University to teach bookkeeping-basic business, the following program must be completed. The certificate for which this program prepares a person is a four-year provisional high school certificate which qualifies the holder to teach bookkeeping-basic business and sales-communication in grades seven through 12, inclusive.

**Methods Course:**

EDSE 470 Tchng. of Bookkeeping-Basic Bus. . . . . 3

**Major Requirements: 70**

ACCT 101 and 102 Managerial. . . . . 8

ACCT 303 Acct. Prin. & Proc. OR

ACCT 311 Ind. Acct. . . . . 4

BUSL 255, 356 Law & Society,

Law of the Mgt. Proc. . . . . 8

ECON 101 and 102 Prin. . . . . 8

GEOG 130 Econ. Geog.

OR

GEOG 331 Geog. of Agric. Activity

OR

GEOG 332 Geog. of Mfg. . . . . 4

JOUR 250 Adv. Prin. . . . . 5

MKT 301 Mkt. Prin. . . . . 4

MKT 458 Sales Mgt. OR

MKT 444 Consumer Behavior. . . . . 4

FIN 325 Managerial Finance. . . . . 4

MGT 300 Mgt. . . . . 4

MGT 325 Comm. Behavior in Mod. Organization. . . . . 4

CS 201 Intro. to Comput. OR

QM 200 and 330 Intro. to Bus. Data Proc.

and COBOL Programming . . . . . 5 8

Elective in business . . . . . 8 4

**Chemistry**

A student may earn a B.S. Ed. in the College of Education or a B.A. or B.S. in chemistry in the College of Arts and Sciences and meet teacher certification requirements. Regardless of the college of the University from

which a student graduates, if he or she wishes to be certified through Ohio University to teach chemistry as the major field at least the following program must be completed. (Requirements for a B.S. in chemistry in the College of Arts and Sciences are more extensive than the following. See Chemistry in the *Courses of Instruction* section of the catalog.) The certificate for which this program prepares a person is a four-year provisional high school certificate which qualifies the holder to teach chemistry in grades seven through 12, inclusive.

Students are strongly urged to complete a second teaching field preferably in another science or in mathematics. The hours required to complete a minor in math or the other science fields are approximately: Math — 20-25 hours, biology — 32 hours, earth science — 35 hours, general science — 18 hours, physics — 21-23 hours. Program sheets detailing specific course requirements in these minors are available in the Student Personnel Services Office, McCracken Hall.

#### Methods Course:

EDSE 478 Teaching of Physical Science ..... 3

#### Major Requirements: 65-77

1. Tool Courses (21-25)
  - MATH 163A and B OR 263A and B ..... 8-10
  - PHYS 201 and 202 OR 251 and 252 ..... 8-10
  - BOT 110 OR ZOOL 150 Intro. .... 6
2. Chemistry Courses (44-46)
  - CHEM 141, 142, 143 ..... 15
  - CHEM 301, 302, 303, 304\* Organic  
OR 305, 306, 307, 308, 309 Organic ..... 9-13
  - CHEM 325\* Instrumental Methods of Analys.  
OR 484 and 485 Electrochem. &  
Spectrochem. Analys. .... 4-10
  - CHEM 351\* Phys. .... 5-9
  - OR 453, 454, 455 Phys. .... 5-9
  - CHEM 476 Mod. Inorganic ..... 4
  - CHEM 489 Basic Biochem. .... 4

\*Student must choose one of the long sequences in organic, instrumental, or physical chemistry. Choosing the long sequence in physical chemistry will require more math and more physics than listed as tools for this major.

#### Communications Comprehensive — Option One (Speech Emphasis)

Regardless of the college of the University from which a student graduates, if he or she wishes to be certified through Ohio University to teach in communication with an emphasis in speech, the following program must be completed. The certificate for which this program prepares a person is a four-year provisional high school certificate which qualifies the holder to teach English, speech, journalism, reading, and an integrated communications course in grades seven through 12, inclusive.

#### Methods Courses:

INCO 421 Tchng. Speech Comm. I ..... 5

#### Major Requirements: 92

1. Speech (41 hrs)
  - a. Fundamental Processes
    - \*INCO 101 Speech Fundamentals ..... 3
    - \*INCO 245 Intro. to Org. Comm. .... 4
  - And five quarter hours of elec selected from:
    - INCO 107 Intro. to Verbal Lang. Behavior ..... 2
    - INCO 104 Listening ..... 2
    - INCO 433 Appic. of Gen. Semantics ..... 4
    - INCO 448 Cross-Cultural Comm. .... 4

- b. Theory and History of Speech
  - \*INCO 234 Intro. to Comm. Theory ..... 5
  - \*INCO 353A, or B, or C Hist. & Crit. of Oratory ..... 3
- And eight quarter hours of elec selected from:
  - INCO 217 Forensic Wkshp. .... 1-6
  - INCO 425 Dir. Forensic Program. .... 3
  - INCO 435 Theories of Argument. .... 3
  - INCO 342 Comm. & Persuasion ..... 4
  - INCO 446 Comm. & Campaign ..... 5
  - INCO 452 Psych. of Speech ..... 4
  - INCO 450 Intro. to Rhetorical Theory ..... 3
  - INCO 458 Responsibilities & Freedom of Speech ..... 4
  - INCO 460 Prin. of Mess. Analysis ..... 4
  - INCO 481 Measurement of Speech Comm. .... 4
  - R-TV 270 Brdcstng. & Pub. .... 4
  - R-TV 441 Instruct. Methods in Educ. TV ..... 4
  - THAR 210 Acting I ..... 4
  - THAR 270 or 271 or 272 Theater Hist. .... 3
  - THAR 320 Dir. I ..... 4

- c. Forms of Speech
  - \*INCO 105 or R-TV 105 or  
JOUR 105 Intro. to Commun. .... 4
  - \*INCO 220 Oral Interp. of Lit. .... 4
- And 7 hours selected from at least 3 of the 6 areas:
  - Platform Speaking*
    - INCO 103 Pub. Spkng. .... 4
    - INCO 212 Message Prep. .... 4
  - Discussion*
    - INCO 205 Group Discussion ..... 4
    - INCO 210 Parliamentary Proced. .... 2
    - INCO 404 Interviewing ..... 4
    - INCO 405 Conference Leadership ..... 4
  - Debate*
    - INCO 215 Argumentation & Debate ..... 4
  - Acting*
    - THAR 210, 211, 212 Acting I, II, III ..... 4,4,4
    - THAR 441 Creative Dramatics. .... 3
  - Playdirecting*
    - THAR 465 Practi. in Dir. .... 2-4
  - Technical Theater*
    - THAR 427 Practi. in Stage Mgt. .... 2-4
    - THAR 135, 235, 335, 435 Practi. in  
Prod. Design ..... 2-4

\*Required

2. English (27 hours)
  - ENG 200 Intro. to Lit. .... 4
  - ENG 307 Struc. of Am. Engl. .... 5
  - ENG 308 Adv. Comp. .... 5
- Select one of the following (4-5 hours):
  - ENG 301 Shakespeare: Histories
  - ENG 302 Shakespeare: Comedies
  - ENG 303 Shakespeare: Tragedies
  - ENG 312 Medieval & Renaissance Engl. Lit.
  - ENG 313 Restoration & Neo-Classical Engl. Lit.
  - ENG 314 Romantic & Victorian Lit.
  - ENG 360 Major Authors: Engl.
- Select one of the following (4-5 hours):
  - ENG 317A,B,C Am. Lit. by Black Authors
  - ENG 321 Am. Lit. to Civil War
  - ENG 322 Am. Lit. Since Civil War
  - ENG 361 Major Authors: Am.
- Select one of the following (3-5 hours)
  - HUM 307, 308, 309 Great Books
  - ENG 204 Internat. Lit.: Classical
  - ENG 205 Internat. Lit.: Romantic
  - ENG 206 Internat. Lit.: Modern
  - ENG 306A,B,C Oriental Lit.
- Select sufficient hours of English courses at the 200 level or above to bring total to 27 quarter hours.
3. Journalism (15-17)
  - JOUR 231 News Rptng. .... 4
  - JOUR 333 News Edit. .... 4
  - JOUR 484 or 485 ..... 4
- Select one of the following (3-5):
  - JOUR 221 Graphics of Comm. .... 5
  - JOUR 331 Rptng. Contemp. Issues ..... 3
  - JOUR 441 Mag. Feature Wrting. .... 4
4. Reading (9 hours)
  - EDEL 411 Diagnosis & Treatment of Reading  
Disabilities ..... 4
  - EDSE 420 Tchng. Reading in Jr. & Sr. H.S. .... 5

## Communications Comprehensive — Option Two (English Emphasis)

Regardless of the college of the University from which a student graduates, if he or she wishes to be certified through Ohio University to teach in the field of communications with an emphasis in English the following program must be completed. The certificate for which this program prepares a person is a four-year provisional high school certificate which qualifies the holder to teach English, speech, journalism, reading, and an integrated communications course in grades seven through 12, inclusive.

### Methods Courses:

ENG 450A Tchng. Lang. & Comp	3
ENG 450B Tchng. Lit	3

### Major Requirements: 95

1. English (42)	
ENG 200 Intro. to Lit.	4
ENG 312 Medieval & Renaissance Engl. Lit.	5
ENG 313 Restoration & Neo-Classical Engl. Lit.	5
ENG 314 Romantic & Victorian Lit.	5
ENG 307 Struct. of Am. Engl.	5
ENG 308 Adv. Comp.	5
ENG 322 Am. Lit. Since Civil War	5
Select one of the following	4
ENG 361 Major Authors: Am.	
ENG 362 Major Authors: Internat.	
ENG 460 Literary Genres	4
2. Speech (29 hours)	
*INCO 101 Speech Fundamentals	3
*INCO 245 Intro. to Org. Comm.	4
Theory & Hist. of Speech	
*INCO 234 Intro. to Comm. Theory	5
*INCO 353A, or B, or C Hist. & Crit. of Oratory	3
Forms of Speech	
*INCO 105 or R-TV 105 or	
JOUR 105 Intro. to Comm	4
INCO 220 Oral Interp. of Lit.	4
Eight hrs of elec selected from	
INCO 103 Pub. Spkg	4
INCO 205 Group Discussion	4
INCO 215 Argumentation & Debate	4
3. Journalism (15-17)	
JOUR 231 News Rptng	4
JOUR 333 News Edit	4
JOUR 454 or 455	4
Select one of the following (3-5)	
JOUR 221 Graphics of Comm	5
JOUR 331 Rptng. Contemp. Issues	3
JOUR 441 Mag. Feature Wrting	4
4. Reading (9 hours)	
EDEL 411 Diagnosis & Treatment of Reading	
Disabilities	4
EDSE 420 Tchng. Reading in Jr. & Sr. H.S.	5

Prerequisite:

## Comprehensive Business Education

Regardless of the college of the University from which a student graduates, if he or she wishes to be certified through Ohio University to teach business education, the following program must be completed. The certificate for which this program prepares a person is a four-year provisional high school certificate which qualifies the holder to teach business education in grades seven through 12, inclusive.

### Methods Course:

EDSE 470 Tchng. of Bookkeeping Basic Bus.	3
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### Major Requirements: 92-95

1. Typewriting and Office Procedures (42-46)	
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GST 121, 122, 123 Typewriting Courses*	8
GST 111, 112, 113, 241G, 242G Shorthand	
Courses*	15
GST 231 Office Machines*	3
GST 171G Office Methods & Proced.*	3
GST 262 Report & Letter Wrting.*	4
CS 201 Intro. to Comput. OR	
QM 200 and 330 Quant. Methods	5-8
MGT 325 Comm. Behavior in Mod. Organization	4
2. Business and Economics (40 hours)	
ACCT 101 Managerial Acct.	4
ACCT 102 Managerial Acct.	4
ACCT 303 Acct. Prin. & Proced. OR	
ACCT 311 Ind. Acct.	4
BUSL 255 Law & Society	4
BUSL 356 Law of Mgt. Proc.	4
ECON 101 Prin.	4
ECON 102 Prin.	4
MKT 301 Mkt. Prin.	4
MGT 300 Mgt.	4
FIN 325 Managerial Finance	4
3. Electives in Business and Related Areas (10 hours)	
Select 10 quarter hours of electives from the following:	
JOUR 250 Advert. Prin.	5
MKT 444 Consumer Behavior	4
MKT 458 Sales Mgt.	4
GEOG 130, or 331, or 332	4
MATH 163A Intro. to Calculus	4
MATH 163B Intro. to Calculus	4
Accounting courses	
Economics courses	

Ohio University does not offer courses in these areas except on the Chillicothe and Lancaster campuses. Students following this major must take these courses at the Chillicothe and Lancaster campuses or at another institution. Courses could be taken at a four-year accredited institution or at certain technical institutions. Any courses taken to fulfill these requirements should be approved by the Student Personnel Services Office in the College of Education to insure applicability towards certification.

## Earth Science

A student may earn a B.S.Ed. in the College of Education or a B.A. or B.S. in geology or geography in the College of Arts and Sciences and meet teacher certification requirements. Regardless of the college of the University from which a student graduates, if he or she wishes to be certified through Ohio University to teach earth science as a major field, the following program must be completed. The certificate for which this program prepares a person is a four-year provisional high school certificate which qualifies the holder to teach earth science in grades seven through 12, inclusive.

Students are strongly urged to complete a second teaching field, preferably in another science or in mathematics. The hours required to complete a minor in math or the other science fields are approximately: math — 30 hours, biology — 22 hours, chemistry — 26 hours, general science — none, physics — 23 hours. Program sheets detailing specific course requirements in these minors are available in the Student Personnel Services Office, McCracken Hall.

### Methods Course:

EDSE 472 Tchng. of Earth Science	3
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### Major Requirements: 81

1. Tool Courses (30)	
CHEM 121, 122, 123	12
PHYS 201, 202	8
BOT 110 OR ZOOL 150 Intro	6
BOT 111 OR ZOOL 151 Intro	6
2. Earth Science Courses (51)	
GEOG 101 Phys. Geog.	5
GEOG 201 Environment & Man	4
GEOG 311 Elements of Meteorology	5
GEOG 312 Climate	5
PSCI 100B Universe	4
OR	

PHYS 211 Universe .....	3
ASTR 300 Solar System .....	3
GEOL 101 Intro. to Geol. ....	5
GEOL 211 Intro. to Oceanography .....	4
GEOL 310 Rocks & Minerals .....	5
GEOL 256 Historic .....	4
GEOL 330 Prin. of Geomorphology .....	5
GEOL 360 Struct. Geol. ....	4

### Educational Media Programs

The Educational Media Academic Area provides two undergraduate majors and two undergraduate minors. One of the majors is designed to prepare media specialists to work in the public schools. Upon completion of this program, students become eligible for teacher certification as media specialists, grades K-12. The other major is designed to prepare media personnel to work in business/industry, the health sciences, and higher education nonteaching capacities. Both minors are designed to prepare media specialists to work in the public schools, one in grades K-8, the other in grades 7-12. Upon completion of either minor, the student becomes eligible for teacher certification as a media specialist.

### Certificated Media Major

#### Methods Course:

EDM 489 Organization and Administration of Ed. Media Prog. ....	5
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#### Major Requirements:

##### Required Core Courses

EDM 201 Use of Library Media Resources I .....	3
EDM 289 Sophomore Practicum .....	2
EDM 304 Acquisition and Pres. of Mats .....	3
EDM 305 Use of Library Media Resources II .....	3
EDM 389 Junior Practicum .....	2
EDM 403 Basic Catalog. and Class. ....	5
EDM 404 Basic Catalog. Non-print Mats. ....	4
EDM 480 Intro. to Ednl Media .....	4
EDM 481 Fund. of Instruct. Design and Devel. Media Emph .....	4
EDM 482 Product. of Instruct. Mats. ....	4
EDM 483 Select. & Eval. of Mats. ....	4

##### Required Courses

EDEL 200 Studies of Children or HECF 160 Intro. to Child Devel. ....	4
EDEL 321 Children's Lit. ....	4
EDM 301 Library Serv. to Children .....	4
EDM 302 Adoles. Mats. and Serv. ....	4
EDM 303 Tchng Library Skills K-12. ....	3

##### Select 8 quarter hours from the following:

ART 151 Intro. to Graphic Design .....	4
ART 191 Intro. to Photog. ....	4
RTV 200 Intro. to Production & Writing for Electronic Media .....	6
RTV 441 Instruct. Meth. in Ednl. Radio-Television .....	4
EDCI 461 Intro. to Individualiz. of Instruct. ....	4

##### Select 6 quarter hours from the following:

INCO 105 Intro. to Mass Comm. ....	4
CS 150 Computer Science Survey .....	3
EDSP 271 Intro. to Ed. of Except. Child. & Youth .....	3
EDEL 310 Teach. Lang. Arts Elem. Sch. ....	3
and EDEL 310L Field/Clinical Exper. ....	2
EDEL 311 Teach. Read. Elem. Sch. ....	4
and EDEL 311L Field/Clinical Exper. ....	1
INCO 234 Intro. to Comm. Theory .....	4
EDM 490 Study in Ednl. Media (Max. 15) .....	1-5

Students must complete second teaching field

### Non-certificated Media Major

All students pursuing this program must complete 32 quarter hours in a related area. The related area includes coursework, internship, or both in the environment in

which the student has elected to seek employment. The specific courses are to be determined with the student's advisor and then placed on file in the student's folder in the Student Personnel Services Office, College of Education.

#### Required Core Courses:

EDM 201 Use of Library Media Resources I .....	3
EDM 289 Sophomore Practicum .....	2
EDM 304 Acquisition and Preserv. of Mats. ....	3
EDM 305 Use of Library Media Resources II .....	3
EDM 389 Junior Practicum .....	2
EDM 403 Basic Catalog. & Class. ....	5
EDM 404 Basic Catalog. Non-print Mats. ....	4
EDM 480 Intro. to Ednl Media .....	4
EDM 481 Fund. of Instruct. Design and Devel.: Media Emph. ....	4
EDM 482 Product. of Instruct. Mats. ....	4
EDM 483 Select. & Eval. of Mats. ....	4

#### Required Courses:

INCO 105 Intro. to Mass Comm. ....	4
INCO 234 Intro. to Comm. Theory .....	4
CS 150 Computer Science Survey .....	4
ART 151 Intro. to Graphic Design .....	4
ART 191 Intro. to Photography .....	4
ART 192 Basic Photography .....	4
RTV 200 Intro. to Production & Writing Radio-Telev. ....	4
RTV 441 Instruct. Methods in Ednl. Radio-Television .....	4
INDT 244 Graphic Processes .....	3
EDCI 461 Intro. to Individualiz. of Instruct. ....	4
EDM 489 Organiz. & Admin. of Ednl. Media Progs. ....	5

### English Comprehensive

Regardless of the college of the University from which a student graduates, if he or she wishes to be certified through Ohio University to teach English, the following program must be completed. The certificate for which this program prepares a person is a four-year provisional high school certificate which qualifies the holder to teach English in grades seven through 12, inclusive.

#### Methods Courses:

ENG 450A Tchng. Lang. & Comp. ....	3
ENG 450B Tchng. Lit. ....	3

#### Major Requirements: 63-67

ENG 200 Intro. to Lit. ....	4
Select one of the following .....	5
ENG 301 Shakespeare: Histories .....	
ENG 302 Shakespeare: Comedies .....	
ENG 303 Shakespeare: Tragedies .....	
Select two of the following. ....	8-10
ENG 307 Struct. of Am. Engl. ....	
ENG 350 Tradit. Grammar, Mechanics, & Usage .....	
ENG 351 Hist. of Engl. Lang. ....	
ENG 352 Devel. of Am. Engl. ....	
ENG 308 Adv. Comp. ....	5
ENG 312 Medieval & Renaissance Engl. Lit. ....	5
ENG 313 Restoration & Neo-Classical Engl. Lit. ....	5
ENG 314 Romantic & Victorian Lit. ....	5
ENG 322 Am. Lit. Since Civil War .....	5
Select one of the following .....	5
ENG 321 Am. Lit. to Civil War .....	
ENG 317A, B, or C Am. Lit. by Black Authors .....	
ENG 331 20th Cent. Brit. & Am. Lit. ....	
Select one of the following .....	4
ENG 361 Major Authors: Am. ....	
ENG 362 Major Authors: Internat. ....	
ENG 460 Lit. Genres .....	4
Select one of the following .....	3-5
HUM 307, 308, 309 Great Books .....	
ENG 204 Internat. Lit.: Classical .....	
ENG 205 Internat. Lit.: Romantic .....	
ENG 206 Internat. Lit.: Modern .....	
ENG 306A,B,C Oriental Lit. ....	
EDSE 420 Tchng. Reading in Jr. & Sr. H.S. ....	5

## Family Life Education

Regardless of the college of the University from which a student graduates, if he or she wishes to be certified through Ohio University to teach family life education, the following program must be completed. The certificate for which this program prepares a person is a four-year provisional high school certificate which qualifies the holder to teach an integrated family-life education course in grades seven through 12, inclusive.

### Methods Course:

HEED 340 Tchng. of Home Econ. . . . . 4

### Major Requirements: 90

Psychology: 9	
HECF 160 Intro. to Child Devel. . . . .	4
PSY 336 Social Psych. . . . .	5
Biology: 7	
ZOOL 345 Human Physiology. . . . .	4
HPER 204C Drug, Alcohol & Tobacco Educ. . . . .	3
Health: 20	
HEFN 128 Intro. to Nutrition . . . . .	3
HPER 250C Recreation . . . . .	3
HPER 370 Community Health Programs . . . . .	4
HPER 380 Safety Educ. . . . .	4
HPER 227 First Aid. . . . .	3
HPER 202 Personal & Community Health. . . . .	4
Sociology: 4	
Select one of the following:	
SOC 220 Intro. to Family Sociology . . . . .	4
SOC 201 Social Problems . . . . .	4
Marriage and the Family: 19	
HECF 370 Family Living . . . . .	3
HECF 371 Family Devel. . . . .	3
HECF 471 Family Life Educ. . . . .	4
HECF 462 Readings in Child Devel. &/or Family Living. . . . .	6
HECF 360 Human Sexuality . . . . .	3
Household Management: 12	
Select 12 hrs from the following:	
HEFN 222 Food Science & Prin. . . . .	4
HECE 395 Home Mgt. . . . .	3
HEID 180 Furnishing Today's Home. . . . .	3
HEID 384 Family Housing . . . . .	3
HETC 117 Textiles & Dress in the Environment. . . . .	3
Consumer Economics: 7	
HECE 390 Family Consumer Econ. . . . .	3
ECED 447 Econ. Analys. . . . .	4
Select 12 qtr hours from any one or combination of the above fields . . . . .	12

## General Speech — Option One (INCO Emphasis)

Regardless of the college of the University from which a student graduates, if he or she wishes to be certified through Ohio University to teach speech with an interpersonal communication emphasis, the following program must be completed. The certificate for which this program prepares a person is a four-year provisional high school certificate which qualifies the holder to teach speech in grades seven through 12, inclusive.

### Methods Courses

INCO 421 Tchng. Speech Comm. I . . . . . 5

### Major Requirements 60

1 Fundamental Processes (13 hours)	
*INCO 101 Speech Fundamentals . . . . .	3
*INCO 245 Intro. to Org. Comm. . . . .	4
And 6 qtr hrs of elec. selected from	
INCO 104 Listening . . . . .	2
INCO 107 Intro. to Verbal Lang. Behavior . . . . .	2
INCO 433 Applic. of Gen. Semantics . . . . .	4
INCO 448 Cross-cultural Comm. . . . .	4

2. Theory and History of Speech (24 hours)	
*INCO 234 Intro. to Comm. Theory. . . . .	5
*INCO 353A, B or C Hist. & Crit. of Oratory. . . . .	3
And 17 qtr hrs of elec. from:	
INCO 217 Forensic Wkshp. . . . .	1-6
INCO 425 Dir. Forensics Program . . . . .	3
INCO 435 Theories of Argument. . . . .	3
INCO 342 Comm. & Persuasion . . . . .	4
INCO 446 Comm. & Campaign . . . . .	5
INCO 450 Intro. to Rhetorical Theory. . . . .	3
INCO 452 Psych. of Speech. . . . .	4
INCO 458 Responsibilities & Freedom of Speech . . . . .	4
INCO 460 Prin. of Mess. Analysis . . . . .	4
INCO 481 Measurement of Speech Comm. . . . .	4
R-TV 270 Brdctng. & Pub. . . . .	4
R-TV 441 Instruct. Methods in Educ. TV . . . . .	4
THAR 210 Prin. of Acting . . . . .	4
THAR 270 or 271 or 272 Theater Hist. . . . .	3
THAR 320 Dir. I . . . . .	4
3. Forms of Speech (23 hours)	
*INCO, R-TV, JOUR 105 Intro. to Com. . . . .	4
*INCO 220 Oral Interp. of Lit. . . . .	4
And 16 qtr hrs of elec. from 3 of the 6 areas:	
Platform Speaking	
INCO 103 Pub. Spkng. . . . .	4
INCO 212 Message Prep. . . . .	4
Discussion	
INCO 205 Group Discussion . . . . .	4
INCO 210 Parliamentary Proc. . . . .	2
INCO 404 Interviewing. . . . .	4
INCO 405 Conference Leadership . . . . .	4
Debate	
INCO 215 Argumentation & Debate . . . . .	4
Acting	
THAR 210, 211, 212 Acting I, II, III . . . . .	4, 4, 4
THAR 441 Creative Dramatics. . . . .	3
Playdirecting	
THAR 465 Practicum in Dir. . . . .	2-4
Technical Theater	
THAR 427 Practicum in Stage Mgt. . . . .	2-4
THAR 135, 235, 335, 435 Practicum in Prod. Design . . . . .	2-4

\*Required

## General Speech — Option Two (Theater Emphasis)

Regardless of the college of the University from which a student graduates, if he or she wishes to be certified through Ohio University to teach speech with a theater emphasis, the following program must be completed. The certificate for which this program prepares a person is a four-year provisional high school certificate which qualifies the holder to teach speech in grades seven through 12, inclusive.

### Methods Courses:

INCO 421 Tchng. Speech Comm. I . . . . . 5

### Major Requirements: 92

1 Fundamental Process (11)	
INCO 101 Fundamentals of Speech . . . . .	3
INCO 433 Applic. of Gen. Semantics . . . . .	4
THAR 110 Intro. to Performance . . . . .	4
2 Theory and History (32)	
R-TV, JOUR 105 Intro. to Comm. . . . .	3
INCO 234 Intro. to Comm. Theory. . . . .	5
Select one of the following . . . . .	4
R-TV 270 Brdctng. & pub. . . . .	
R-TV 441 Instruct. Methods in Educ. TV . . . . .	
THAR 270 Theater Hist. I. . . . .	3
THAR 271 Theater Hist. II. . . . .	3
THAR 272 Theater Hist. III. . . . .	3
THAR 170 Theater Exper. . . . .	4
THAR 171 Intro. to Play Analys.: Basis for Prod. . . . .	4
THAR 320 Dir. I . . . . .	4

3. Forms of Speech (49)	4
INCO 220 Oral Interp.	4
INCO 103 Pub. Spkng.	4
INCO 215 Argumentation & Debate	4
THAR 135 Pract. in Prod. Design	2
THAR 130 Intro. to Stagecraft	3
THAR 131 Intro. to Lighting	3
THAR 132 Intro. to Costuming	3
THAR 210 Acting I	4
THAR 211 Acting II	4
Select one of the following	3
THAR 230 Stagecraft: Scenery	
THAR 231 Stagecraft: Lighting	
THAR 232 Stagecraft: Costuming	
THAR 237 Makeup	1
THAR 460 Dir. II	4
Select 12 hours from the following THAR practicums and at least two of the following areas must be covered:	
THAR 215, 315, 415 Acting	
THAR 135, 235, 335, 435 Prod. Design	
THAR 105, 205, 305, 405 Mgt.	
THAR 465 Dir.	
THAR 427 Stage Mgt.	

## Health Education

Regardless of the college of the University from which a student graduates, if he or she wishes to be certified through Ohio University to teach health the following program must be completed. The certificate for which this program prepares a person is a four-year provisional high school certificate which qualifies the holder to teach health in grades seven through 12, inclusive.

### Methods Course:

HPER 369 Tchng. of Health	5
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### Specific General Education Requirements:

SOC 101 Intro. to Sociology	5
CHEM 121 Principles of Chemistry	4
ZOOL 101 Intro. to Zoology	5
GEOG 201 or GEOL 201 Man and Environment	4
Math	5

### Major Requirements:

MICR 211 Environmental Micro (212 optional)	3-5
ZOOL 301 Anatomy	6
ZOOL 345 Physiology	4
HEFN 128 Intro. to Nutrition	4
HECF 360 Human Sexuality or ZOOL 103	3
HPER 202 Personal and Community Health	4
HPER 204 Drugs, Alcohol, and Tobacco	3
HPER 227 First Aid	3
HPER 370 Community Health Problems	4
HPER 380 Safety Education	4
HPER 495 School Health Problems	5
HPER 409 Tests and Measurements	4
HPER 228 CPR	1

## History-Modular Social Studies Programs

Regardless of the college of the University from which a student graduates, if he or she wishes to be certified through Ohio University to teach history and one of the other social science areas the following program must be completed. The certificate for which this program prepares a person is a four-year provisional high school certificate which qualifies the holder to teach history and another social studies field in which 30 hours have been completed, in grades seven through 12, inclusive.

### Methods Course:

EDSE 479 Tchng. Social Studies in Jr. & Sr. H.S.	3
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### Major Requirements:

A. History (48 hours)	
HIST 101, 102, 103 Western Civ.	12
HIST 211, 212, 213 U.S. Hist.	12

Select two courses for a minimum of six hours

from each of the following fields:

European History

U.S. History

Other (African, Ancient, Asian, Latin American, Middle Eastern)

8 hrs of the above advanced history courses must be at the 300 level or above.

\*If necessary, select sufficient electives in history to bring total to 48 hrs

B. Select one of the following fields and complete at least 30 qtr hrs in that field:

1. Political Science: 30

a. POLS 101 and 102 OR 103

b. Choose one course from each of the following:

1. POLS 230, 331, 333, 335, 431, 432, 433, 434, 435, 436, 441, 445, 446, 447A or B, 448

2. POLS 401, 402, 409, 413

3. POLS 304, 306

4. POLS 320, 323

5. POLS 250, 351, 354, 427, 452

6. Choose one of the following:

POLS 405, 410, 415, 416, 417, 418, 419, 481, 485

c. Choose enough electives in political science to bring the total number of hrs earned in that field to 30.

2. Economics: 30

a. ECON 101 and 102 (or 301 and 302)

b. ECON 303 and 304

c. Select one of the following:

ECON 370, 371, 372

d. ECON 260

e. ECON 340

f. ECON 352

3. Social Psychology: 30

a. Required courses:

PSY 304, 336, 333, 121, 226

b. Select five (5) hrs from the following:

PSY 310, 241, 315, 376 or 490 Seminars in developmental or social psychology.

4. Geography: 30

a. Required courses:

GEOG 101, 121, 130, 201, 260

b. Select two (2) electives in regional geography so as to include one course in the western region (GEOG 140, 142, 240, 241, 242, 340, 343, 355, and 356) and one in the nonwestern region (GEOG 141, 345, 351 and 352)

c. Select two (2) elective courses in upper level systematic geography (GEOG 301, 311, 312, 321, 325, 327, 330, 331, 332, 420, 422, 429, and 430)

5. Sociology and Anthropology: 30

a. SOC 101 or 302

b. ANTH 101 or 370

c. SOC 201

d. Select one of the following:

SOC 211, 315, 329, 331, 428, 430, 432

e. Select one of the following:

SOC 361, 362, 363, 424

f. Select one of the following:

SOC 220, 421, 422

g. Electives in sociology or anthropology to bring total to 30 hrs.

## Home Economics

Regardless of the college of the University from which a student graduates, if he or she wishes to be certified through Ohio University to teach vocational home economics or home economics education, the following program must be completed. The certificate for which this program prepares a person is a four-year provisional high school certificate which qualifies the holder to teach vocational home economics or home economics education in grades seven through 12, inclusive.

**Methods Course:**

HECE 340 Tchng. Home Econ.	4
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**General Education Requirements:**

INCO 103 Pub. Spkng.	4
English or Language	13-15
PSY 101 Gen. Psych.	5
SOC 101 or 301 Intro. to Sociology	5
ECON 101 or 301 Prin. of Econ.	4
CHEM 121, 122, and 123	12
OR	
BOT 101, 102 and ZOOL 103	14
OR	
ZOOL 101, 103, and 203	15
MATH or PSY 121	2-5
MICR 211 and 212 Environmental Microbiology	5
ART 101 or 102 Studio Foundations	4
Comparative Art, Religion, or Philosophy	4-5

**Home Economics Basic Requirements:**

HEG 101 Prof. Awareness	2
HEFN 128 Intro. Nutrition	4
HEID 180 Furnishing Today's Home	3
HECF 371 Family Devel.	3
HECE 395 Home Mgt.	3

**Specialized Requirements:**

HEFN 120 Meal Mgt.	3
HEFN 222 Food Science Prin.	4
HETC 213 Design Analysis: Theory & Prin.	5
HETC 315 Elem. Textiles	4
HETC 117 Textiles & Dress & Environment	3
HECF 160 Intro. to Child Devel.	4
HECF 361 Preschool Guidance	4
HECE 390 Family Consumer Econ.	3
HECE 396 Home Mgt. Lab.	4
HECE 391 Equipment	4
HECE 299 Seminar	2-5
HECE 399 Seminar	2-5
Approved Electives from 300-400 level courses in:	
Human Nutrition and Food Science	3-4
Human Environment & Design	6-8
Human Development and Family Ecology	3-4

Students may complete requirements for job training certification by taking 45 hours of coursework in a specialized area of home economics. Permission must be granted by the home economics education advisor. The three options are *Job Training — Child Care Services*; *Job Training — Food Service*; and *Job Training — Community and Home Service*.

**Industrial Arts Comprehensive**

A student who desires to be graduated from the College of Engineering and Technology with a major in industrial technology and wishes to obtain through Ohio University a four-year provisional high school certificate valid for teaching industrial arts in grades seven through 12, inclusive, follows the major as specified for the B.S.I.T. Those who desire the B.S.I.T. degree with the teaching option should contact the chairman of the Department of Industrial Technology for further information.

All other students who desire to teach industrial arts must be enrolled in the College of Education and must complete the following program. The certificate for which this program prepares a student is a four-year provisional high school certificate which qualifies the holder to teach industrial arts in grades seven through 12, inclusive.

**Methods Course:**

IT 470 Intern Teaching	3
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**Major Requirements: 100**

IT 115 Metal Fabrication	4
IT 216 Metal Machining	4
IT 220 Small Engines	3
IT 244 Graphic Proc.	3
IT 250 Wood Industry	3
IT 370 Pub. and Pro. Writing	5
IT 301 Ceramic Prod.	3
IT 308 Plastics	3
IT 310 Metal Casting	3
IT 332 Electronics	5
IT 333 Semi-Conductors	3
IT 341 Proc. Photo.	3
IT 347 Plastics Proc.	3
IT 350 Wood Forming	5
IT 361 Prod. Design	2
IT 390 Materials	3
IT 421 Power Transmission	3
IT 471 Admin. of Industrial Educ.	3
IT 472 Contemporary Programs	3
IT 101 Engr. Drawing	3
IT 102 Engr. Drawing	3
Technical electives	7
Chemistry, physics, and mathematics (Minimum of one course in each field)	25

**Latin**

Regardless of the college of the University from which a student graduates, if he or she wishes to be certified through Ohio University to teach Latin, the following program must be completed. The certificate for which this program prepares a person is a four-year provisional high school certificate which qualifies the holder to teach Latin in grades seven through 12, inclusive.

Each person selecting Latin as a major teaching field must have a minor or second teaching field. Requirements for all of the second teaching fields are available in the Student Personnel Services Office, McCracken Hall.

**Methods Course:**

LAT 364 Tchng. of H.S. Latin	3
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**Major Requirements: 39-51**

LAT 101, 102, 103 Begin. Latin	12
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Students entering with two years of high school Latin are excused from this sequence.

Students entering with two (2) years of high school Latin must complete at least 39 hours of Latin numbered above 103, including:

CLNG 401 Life of Romans	3
LAT 433 Advanced Latin Syntax	3

One other 400-level Latin course

Students entering with three or four years of high school Latin will normally register for LAT 351, Latin Prose and Poetry — 3 hours, and then must complete at least 30 hours more of Latin including:

CLNG 401 Life of Romans	3
LAT 433 Adv. Latin Syntax	3

One other 400-level Latin course

**Mathematics**

Regardless of the college of the University from which a student graduates, if he or she wishes to be certified through Ohio University to teach mathematics, the following program must be completed. The certificate for which this program prepares a person is a four-year provisional high school certificate which qualifies the holder to teach mathematics in grades seven through 12, inclusive.

**Methods Course:**

MATH 320 Tchng. of Math in Second School	5
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**Major Requirements: 60**

- A. Select at least 50 quarter hours of mathematics as follows:
1. MATH 263 ABC.....15
  2. MATH 214.....5
  3. MATH 230.....5
  4. One of the following courses in computer science:  
201, 253, 254.....5
  5. Elect one Math 200 level or above.....5
  6. 15 quarter hours of mathematics at the jr.-sr. level  
excluding MATH 320.....15
- B. An additional 10 quarter hours are required and may be selected from any one or combination of the following:
1. Mathematics at the 200 level or above excluding MATH 320
  2. Computer science at the 200 level or above
  3. ASTR 300, 301, 350
  4. CE 220, 321
  5. PHYS 251-252
  6. PHIL 320, 420, 421

**Modern Languages Comprehensive**

Regardless of the college of the University from which a student graduates, if he or she wishes to be certified through Ohio University to teach one of the modern foreign languages, the following program must be completed. The certificate for which this program prepares a person is a four-year provisional high school certificate to teach one of the modern foreign languages (French, German, Russian, Spanish) in grades seven through 12, inclusive.

Students who have completed one year or less of high school work in the language in which they are majoring should start with ML 111 — Elementary Language — 4 hours. Students who have completed two or three years of high school work in the language in which they are majoring should start with ML 211 — Intermediate Language — 4 hours. Students who have completed four or more years of high school work in the language in which they are majoring should start with ML 213. Regardless of the level at which a student starts the college language, he or she must complete at least 56 quarter hours in that language beyond 113.

**Methods Course:**

ML 445 Tchng. of Mod. Foreign Lang. .... 3

**Major Requirements: 56-69**

- LANG 111, 112, 113 Basic ..... 12  
All students must have 56 hours above LANG 113.
- LANG 211, 212 and 213 ..... 12
- LANG 341, 342, 343 Adv. Conversation & Comp. .... 12
- LANG 348 or 349 Civ. & Culture ..... 4
- LANG 355 and 356 Lit. Readings ..... 8
- LANG 354 (Span. majors only) ..... 4
- LANG 410 Lang. Lab. .... 3
- LANG 437 Phonetics ..... 3
- LANG 439 or 441 Stylistics ..... 3
- Electives at 400 level or above ..... 9
- Select 3 hours from the following  
(not required for Span. majors) ..... 3
- Cultural Anthropology
  - Cult. & Civ. of Country
  - History of Country
  - Linguistics
- (Study Abroad Recommended)

**Music Education with Instrumental Emphasis**

Regardless of the college of the University from which a student graduates, if he or she wishes to be certified through Ohio University to teach instrumental music, the following program must be completed. The certificate for which this program prepares a person is a four-year provisional special field certificate which qualifies the holder

to teach music in grades kindergarten through 12, inclusive.

**Methods Course:**

- MUS 363 Meth. & Mater. Inst. .... 3
- MUS 261 String Meth. & Materials ..... 6
- MUS 263 Wind & Perc. Methods ..... 12

**Major Requirements:**

- Applied Music (in principal instrument sufficient to pass prof. test—See School of Music Handbook) .....22
- Second Instr.—Piano unless audition determines no further study is needed. Then another instrument must be studied instead. A piano proficiency examination or its equivalent is also required .....6-12
- Major Performing Groups  
(minimum one per quarter).....11
- MUS 90 (to be taken each quarter) ..... 0
- MUS 101, 102, 103 Theory .....12
- MUS 201, 202, 203 Harmony..... 9
- MUS 204 and 205 Dict. & Sght. Sng. .... 6
- MUS 206 Form & Analys. .... 3
- MUS 304 Instrumentation ..... 3
- MUS 321, 322, 323 Hist. of Music ..... 9
- MUS 455 and 457 Cond. .... 6
- MUS 469 Vocal Meth. & Mater. in Jr., Sr. H.S. .... 4

**Music Education with Vocal Emphasis**

Regardless of the college of the University from which a student graduates, if he or she wishes to be certified through Ohio University to teach vocal music, the following program must be completed. The certificate for which this program prepares a person is a four-year provisional special field certificate which qualifies the holder to teach music in grades kindergarten through 12, inclusive.

**Methods Courses:**

- MUS 367 Mater. & Trends..... 3
- MUS 365 Sec. Sch. Vocal Tech. .... 3
- MUS 364 Sec. Sch. Vocal Tech. .... 3
- MUS 366 Teach. of Mus. in the Elem. Grds. .... 3
- MUS 468 Gen. Music in Jr. H.S. .... 3

**Major Requirements:**

- Applied Music ..... 22
- Principal instrument (voice or piano sufficient to pass prof. test — See School of Music Handbook for requirement)  
If major is piano then must take MUS 451. .... 1
- Secondary Instrument (voice or piano sufficient to pass prof. test — See School of Music Handbook for requirement)  
(A piano proficiency examination is required)..... 6-12
- Major Performing Groups (minimum one per quarter) ..... 11
- MUS 90 (to be taken each quarter) ..... 0
- MUS 101, 102, 103 Theory ..... 12
- MUS 201, 202, 203 Harmony ..... 9
- MUS 204 and 205 Dict. & Sght. Sng. .... 6
- MUS 206 Form & Analys. .... 3
- MUS 261 String Methods (2 qtrs, 2 hr ea) ..... 4
- MUS 263 Wind & Perc. (3 qtrs, 2 hr ea) ..... 6
- MUS 304 Instrumentation ..... 4
- MUS 321, 322, 323 Hist. of Music ..... 9
- MUS 455 and 456 Cond. .... 6

**Physics**

A student may earn a B.S.Ed. in the College of Education or a B.A. or B.S. in physics in the College of Arts and Sciences and meet teacher certification requirements. Regardless of the college of the University from which a student graduates, if he or she wishes to be certified through Ohio University to teach physics as the major field, the following program must be completed. The certificate for which this program prepares a person is a four-year provisional high school certificate which qualifies the holder to teach physics in grades seven

through 12, inclusive.

Students are strongly urged to complete a second teaching field preferably in another science or in mathematics. The hours required to complete a minor in math or the other science fields are approximately: math — 10 hrs., biology — 32 hrs., chemistry — 21 hrs., earth science — 35 hrs., general science — 18 hrs. Program sheets detailing specific course requirements in these minors are available in the Student Personnel Services Office, McCracken Hall.

**Methods Course:**

EDSE 478 Tchng. of Physical Science..... 3

**Major Requirements: 77-78**

1. Tool Courses (35)
  - CHEM 141, 142, 143..... 15
  - MATH 263A, 263B, 263C, 340..... 20
2. Physics Courses (42-43)
  - PHYS 201, 202, 203, 315 Intro. to Physics..... 16
  - OR
  - 251, 252, 253 Gen. Physics..... 15
  - PHYS 272, 273 Electronics Lab..... 4
  - PHYS 311, 312 Mechanics..... 8
  - PHYS 371, 372 Intern. Lab..... 4
  - PHYS 451, 452 Quantum Physics..... 8
  - PHYS 423 Optics..... 4
  - Other 300- or 400-level physics courses, or up to five hours of astronomy courses, or physical science courses (except 101 and 102) can be substituted upon permission of the Physics Department and The College of Education.

**Physical Education — Men and Women**

Regardless of the college of the University from which a student graduates, if he or she wishes to be certified to teach physical education, the following program must be completed. The certificate for which this program prepares a person is a four-year provisional special field certificate which qualifies the holder to teach physical education in grades kindergarten through 12, inclusive.

**Methods Course:**

HPER 402 Teaching Strategies in Physical Education..... 3

**Major Requirements: (Elementary-Secondary Certification)**

- ZOOL 301 Human Anatomy..... 6
- ZOOL 345 Human Physiology..... 4
- HPER 105 Cond. for Activ. & Organic Effic..... 2
- HPER 106 Intro. to Human Movement..... 2
- HPER 115 Rhythmic Activities..... 2
- HPER 134 Intro. to Field Experience..... 2
- HPER 222 Tumbling & Mod. Gymnastics..... 2
- HPER 223 Track and Field..... 2
- HPER 225 Artistic Gymnastics for Women..... 2
- OR HPER 268 Men's Gymnastics..... 2
- HPER 227 First Aid..... 3
- HPER 234 Field Experience..... 1-4
- HPER 273 Movement Educ. & Fund. Skills..... 3
- HPER 274 Sport and Game Skills for Elem. Sch. Children..... 3
- HPER 275 Elem. School Rhythm & Dance..... 3
- HPER 302 Kinesiology..... 4
- HPER 322 Games, Rhythms & Gymnastics for Elem. Sch. Children..... 3
- HPER 333 Theory of Adapted Physical Education..... 3
- HPER 334 Field Experience..... 1-4
- HPER 404 History and Prin. of Physical Education..... 4
- HPER 405 Motor Learning..... 4
- HPER 406 Org. and Administration..... 4
- HPER 409 Tests and Measurements..... 4
- HPER 434 Field Experience..... 1-4
- HPER 485 Percept. Motor Devel. in Children..... 3
- HPER 495 School Health Problems..... 5
- A. TEAM SPORTS (Select 4 credits)

- HPER 260A Flag Football..... 1
- HPER 260B Team Handball..... 1
- HPER 262A Field Hockey..... 1
- HPER 262B Soccer..... 1
- HPER 263A Basketball..... 1
- HPER 263B Volleyball..... 1
- HPER 264A Softball..... 1
- HPER 264B Lacrosse..... 1
- B. INDIVIDUAL SPORTS: (Select 2 credits)
  - HPER 141A Archery..... 1
  - HPER 141B Golf..... 1
  - HPER 221A Tennis..... 1
  - HPER 221B Badminton..... 1
  - HPER 224A Wrestling..... 1
  - HPER 224B Racketball..... 1
- C. AQUATICS: (Select 2 credits)
  - HPER 104 Swimming II..... 2
  - HPER 109 Synchronized Swimming..... 2
  - HPER 218 Life Saving..... 2
  - HPER 220 Water Safety Instructors..... 2
  - HPER 265 Diving and Compet. Swimming..... 2
- D. DANCE: (Select 2 credits)
  - HPER 107 Modern Dance I..... 2
  - HPER 108 Modern Dance II..... 2
  - HPER 116 Social Forms of Dance..... 2
  - HPER 117 Folk and Square Dancing..... 2
- HPER 377 Theory and Pract. of Elem. Phys. Ed. .... 3
- PLUS
- One of the following: HPER 371, 372, 373, 374, 375, or 378..... 3

**Social Psychology**

Regardless of the college of the University from which a student graduates, if he or she wishes to be certified through Ohio University to teach social psychology, the following program must be completed. The certificate for which this program prepares a person is a four-year provisional high school certificate which qualifies the holder to teach social psychology in grades seven through 12, inclusive.

Each person selecting social psychology as a major teaching field must have a second teaching field selected from biological science, general science, English, history, mathematics, political science, chemistry, physics, health, physical education, or industrial arts.

Social psychology is an experimental program and because of limited student placements only a few persons will be allowed to enter this program each year. Definite screening procedures have been established and you can gain more information by contacting the Student Personnel Services Office, Room 124, McCracken Hall.

**Methods Course:**

EDSE 479 Tchng. of Social Sciences in Jr. & Sr. H.S. .... 3

**Major Requirements: 45**

- PSY 121 Statistics..... 5
- PSY 226 Experimental..... 5
- PSY 241 Behavioral Measurement..... 5
- PSY 336 Social..... 5
- PSY 304 Human Learning..... 5
- PSY 333 Personality..... 5
- Select 5 hours from the following:
  - PSY 301, 307, 312, 314, 327
- Select ten hours from the following courses
  - PSY 332 Abnormal..... 5
  - PSY 310 Motivation..... 5
  - PSY 315 Individual Differences..... 5
  - PSY 351 Intro. to Clinical..... 5
  - PSY 376 Psych. Dis. of Child..... 5
  - PSY 173 Child & Adolescent..... 5
  - Seminars in social or developmental psychology.

## Social Studies Comprehensive

Regardless of the college of the University from which a student graduates, if he or she wishes to be certified through Ohio University to teach under the social studies comprehensive, the following program must be completed. The certificate for which this program prepares a person is a four-year provisional high school certificate which qualifies the holder to teach history, an integrated social studies course, and any other component area in which at least 18 hours have been completed, in grades seven through 12, inclusive.

Each student is to complete the required 36 hours of history and then complete 18 hours in one (or more if desired) of the other five fields (economics, geography, political science, sociology, and anthropology) and eight hours in each of the remaining fields. For example, a student would complete the required 36 hours of history, the 18 hours required in political science, and the required eight hours in each of the fields of economics, geography, sociology, and anthropology. In this example, the certificate issued would be valid for teaching history, an integrated course in social studies, and political science.

## Methods Course:

EDSE 479 Tchng. of Social Studies in Jr. & Sr. H.S. .... 3

## Major Requirements: 90

- A. History: 36
1. Select two of the following:  
HIST 101, 102, 103 Western Civ. .... 8
  2. Select two of the following:  
HIST 211, 212, 213 U.S. Hist. .... 8
  3. Select two courses for a minimum of 6 hrs of either U.S. or Modern European history at 300 level or above (Ohio history recommended)
  4. Select two courses for a minimum of 6 hrs of non-U.S., non-Modern European history
  5. Select sufficient electives in history at the 300 level or above to bring total to 36 hrs.
- B. Select a minimum of 18 qtr hrs in ONE of the following fields AND a minimum of 8 qtr hrs in each of the other fields:
1. Political Science:  
POLS 101\* and 102\* OR 103\* Am. National Select any 10 add't qtr hrs to fulfill 18 hr fld
  2. Economics:  
ECON 101\* and 102\* or 301\* and 302\*  
Elect any 10 additional qtr hrs to fulfill 18 hr field (may include ECED 346)
  3. Geography:  
GEOG 101\*, 121\*  
Select one elective in regional geography (GEOG 140, 141, 142, 240, 241, 242, 340, 343, 345, 351, 352, 355, 356) and one elective in upper level systematic geography (GEOG 301, 311, 312, 321, 325, 327, 330, 331, 332, 420, 422, 429, and 430) and any needed electives.
  4. Sociology:  
SOC 101\* or 302\*  
Select one course to complete 8 hr field\*  
Sociology elective including one course at the 400 level to complete 18 hr field.
  5. Anthropology:  
ANTH 101\* or 370\*  
Select one course to complete 8 hr field.\*  
Anthropology elective including one course at the 400 level to complete 18 hr field.
- C. Select electives in any one or combination of the above fields to bring total qtr hrs to 90.

\*Courses required in 8 qtr hr minimum choice.

## SPECIAL EDUCATION PROGRAMS

Three professional preparation programs are available to prospective teachers of exceptional children. These programs are for teachers of (1) educable mentally retarded children and children with learning and behavior disorders, (2) speech and hearing therapy, and (3) a combination of EMR/LD and early childhood education. A program leading to certification in MSPR has been developed and will be effective 1981-82.

## Learning Disabilities and Educable Mental Retardation

## General Education Requirements:

Students must also complete Ohio University's program of general education (see General Education section of this catalog) and are urged to consult with their advisors to plan to meet both sets of general education requirements.

- Humanities ..... 8
- Eight hours of humanities are required. Possible courses include any combination of the following: comparative arts, art history, great books (HUM 107, 108, 109, 307, 308, and 309), philosophy, art (except for ART 360, 460, 461, 462), music (except for music education and music therapy courses. No more than three one-hour participation courses would be acceptable), theater history courses.
- Natural Sciences ..... 8
- Eight hours of natural sciences are required. Possible courses include any combination of the following: botany, zoology, physics, geology, chemistry, or physical world. One of the courses taken must contain a laboratory component.
- Social Sciences ..... 8
- Eight hours of social sciences are required. Possible courses include the following: anthropology, economics, economic education, geography, political science, history, sociology, or social welfare.
- Psychology ..... 8
- Eight hours of electives in psychology are required. The following are recommended: PSY 121, 131, 241, 304, 310, 312, 315, 333, and 336. (EDGS 410 may be substituted for one psychology course.)
- INCO 101 or 103 ..... 3-4
- PSY 101 Gen. Psych. .... 5
- English ..... 10
- Freshman and Junior Composition Requirement
- Speech and Hearing Therapy ..... 3-4
- HSS 108 Intro. to Speech Disorders or HSS 336 Speech & Hearing Disorders in the Pub. Schools.
- MATH 120 ..... 5
- MATH 120 is recommended; however, any mathematics course(s) numbered above 120 equaling five hours would be acceptable (except Math 151).
- Music
- MUS 160 Music Fundamentals ..... 3
- MUS 161 Music for Classroom Teacher ..... 3
- ART 360 Art for the Elementary Teacher or two of the following courses ..... 6
- THAR 441 Creative Dramatics ..... 3
- IT 391 Elem. Industrial Arts ..... 2
- MUS 281 Social & Recreational Instru. & Materials ..... 3
- HPER 251 Crafts for Rec. Pro. .... 3
- HPER 202 Personal & Community Health ..... 4
- Recreation for the Handicapped ..... 3-5
- HPER 250, Recreation Leadership, or HPER 333, HPER 435, EDSP 435, HPER 315C, HPER 485C.
- Major Requirements:
- Block I (Sophomores)
- EDSP 160 Field Experiences in Special Education ..... 1
- EDSP 271 Introduction to Education of Except. Childrn ..... 3
- EDEL 200 Studies of Children ..... 4

Block II (Sophomores)		
EDSP 272 Introduction to Educ. of Mentally Ret.	3	
EDSP 373 Curriculum and Materials for Mentally Ret.	3	
EDSP 270 Classroom Management of Children I	3	
EDSP 260 Field Experience in Spec. Educ.	2	
EDCI 275 Learning Process in the Classroom or PSY 275 Educational Psychology	5	
Block III (Juniors)		
EDEL 311 Teaching of Reading in Elementary School	4	
EDEL 311L Field Experiences/Elem. Reading	1	
EDSP 474 Intro. to Specific Learning Disabilities	4	
EDM 480 Intro. to Educational Media	4	
EDCI 401 Advanced Field Exper./Urban	2	
Block IV (Juniors)		
EDSP 374 Teaching Lang. Arts to Mentally Ret.	4	
EDSP 375 Social Studies & Science for Mentally Ret.	4	
EDSP 377 Career and Voc. Educ. for Handicapped	3	
EDSP 370 Classroom Management II	3	
EDSP 360 Field Experiences in Special Educ.	3	
Interim Block (Juniors/Seniors)		
EDEL 411 Diagnosis and Treatment of Reading Problems	4	
EDSP 485 Diagnosis and Eval. of Handicapped	3	
EDSP 376 Tchng Math for Ment. Ret. & Learning Disabled	4	
Block V (Seniors)		
EDSP 476 Teaching the Learning Disabled	4	
EDSP 477 Communicating with Parents of Except. Indiv.	3	
EDSP 460 Field Experiences in Special Educ.	3	
Post-Student Teaching		
EDCI 480 Teacher School and Society	3	
<b>Professional Laboratory Experience:</b>		
EDPL 461 and 462 Stu. Tchng.	13	
EDPL 465 Stu. Tchng. Seminar	3	
<p>These three courses are taken concurrently in one quarter and constitute the student teaching requirement. A person should make an application for student teaching by December 1 of the year prior to the year in which student teaching is to be taken. For example, anyone doing student teaching during any of the three quarters of the school year 1982-83 should apply for student teaching by December 1, 1981. For further information about student teaching, contact the Field Experience Office. Students must complete Block IV before entering student teaching.</p>		
<b>Special Education/Early Childhood</b>		
<p>Special education/early childhood prepares persons to meet State of Ohio teacher certification requirements as teachers of the educable mentally retarded and as teachers of children with learning disabilities and/or behavior disorders, and to be teachers in preschool. At the present time, there is no teaching certificate for preschool, however, such certification is being discussed and may be enacted in the near future. The preschool aspect of this major meets what is currently being discussed as possible certification requirements. The concept of trained personnel working in special education with preschool children is one of the national trends in education.</p>		
<b>General Education Requirements.</b>		
Social Sciences 8		
ECON 101 Prin. of Econ	4	
or ECED 346 Econ. in Curr	3 5	
SOC 101 Intro to Soc	5	
or SOC 201 Social Problems	4	
Natural Sciences 9		
ZOOL 101 Prin. of Biol		
or BOT 101 Prin. of Biol	5	
ZOOL 103 Human Biol	4	
PSY 101 Gen. Psych	5	
INCO 101 Fund. of Speech	3	
or INCO 103 Pub. Spkg	4	
English, 1 course & jr. lev comp	5	
HSS 108 Intro. to Speech Disorders		
or HSS 336 Speech & Hear. Disorders		
in the Public Schools	3-4	
MATH 120 Elem. Topics in Math.	5	
Music: 6		
MUS 160 Music Fundamentals	3	
MUS 161 or 262 Mus. Classrm. Tchr.	3	
Art 360 Art for Elem. Teachers	6	
HPER: 7-9		
HPER 202 Persnl. & Community Hlth.	4	
or HPER 227 First Aid	3	
HPER 333 Theory of Adapted Activ.	3	
or HPER 250 Recreation Leadership		
or HPER 435 Recreation & PE for MR., & Lrng. Disabled	5	
<b>Related Professional Education:</b>		
HECF 463 Preschool Admin.	5	
EDEL 306 Kindergarten Educ.	6	
EDSP 371 Tchng. Preschool Handicap	3	
<b>Major Requirements:</b>		
Block I (Sophomores)		
EDSP 160 Fld. Exp. in Spec. Ed.	1	
EDSP 271 Intro. to Educ. Excep. Children	3	
EDEL 200 Studies of Children		
or HECF 160 Intro. to Child. Dvlp.	4	
Block II (Sophomores)		
EDSP 272 Intro. to Educ. of MR. Children & Youth	3	
EDSP 373 Curr. & Matrl. for MR.	3	
EDSP 270 Classrm. Mgt. Child I	3	
EDSP 260 Field Exp. Spec. Ed.	2	
EDCI 275 Lrng. Proc. in Classrm		
or PSY 275 Educ. Psych.	5	
EDCI 401 Advanced Fld. Exp. Urban	2	
Block III (Junior)		
EDEL 311 Tchng. Rdng. Elem. Sch.	4	
EDEL 311L Fld. Exp. Elem. Sch.	1	
EDSP 474 Intro to Spec Lrng Dis	4	
EDM 480 Intro. to Educ. Media	4	
Block IV (Junior)		
EDSP 374 Tchng. Lang. Arts MR.	4	
EDSP 375 Soc. Studies & Sci. MR.	4	
EDSP 377 Career Vocntnl. Ed. Handicapped	3	
EDSP 370 Classrm. Mgt. II	3	
EDSP 360 Fld. Exp. Spec. Ed.	3	
Block V (Senior)		
EDSP 376 Tchng. Math. MR. & LD.	4	
EDSP 476 Tchng. The Lrng. Disab.	4	
EDSP 460 Fld. Exp. Spec. Ed.	3	
Early Childhood: 22		
HECF 360 Human Sexuality	3	
HECF 363 Creative Experience		
with Preschool Children	4	
HECF 371 Family Dvlp.	3	
HECF 462B Parenthood	2	
HECF 462D 1-Parent Family	2	
HEFN 232 Infant & Child Nutrition	3	
or HEFN 128 Intro. to Nutrition	4	
HECF 361 Prin. of Presch. Guidance	4	
<b>Professional Laboratory Experience:</b>		
EDPL 461-462 Stu. Tchng. in Elem. Schools	13	
EDPL 465 Stu. Tchng. Sem.	3	
<p>These three courses are taken concurrently in one quarter and constitute the student teaching requirement. A person should make an application for student teaching by December 1 of the year prior to the year in which student teaching is to be taken. For example, anyone doing student teaching during any of the three quarters of the school year 1982-83 should apply for student teaching by December 1, 1981. For further information about student teaching, contact the Field Experience Office.</p>		

*Post Student Teaching*

HECF 464 Nursery School Practi..... 6

Students must sign up with the director of the Child Development Center, at least one year in advance.

*Suggested Electives*

EDSP 400,473,481,372, &amp; HEG 365

**Speech and Hearing Therapy***General Education Requirements:*

Select 27 quarter hours from the following areas to include at least one course from each of the four areas.

1. Science and/or Mathematics — Courses to be selected from: astronomy, botany, zoology, chemistry, physics, physical science, geology, or any course in the Mathematics Department EXCEPT 011, 032, 109A, 109B, 320, and 420. PSY 121 is also considered a math course.
2. Comparative Arts and/or Philosophy — Possibilities include any courses in the Philosophy Department; Comparative Arts Department; HUM 107, 108, 109, 307, 308, 309; theater history courses; art history courses; art courses EXCEPT for ART 360, 460, 461, 462; School of Music courses EXCEPT for music education courses and music therapy courses; AAS 101, 119, 121, 302.
3. Social Science — Possibilities include anthropology, economics, geography, political science, history, sociology, or social welfare; AAS 103, 106, 107, 201, 251, 252, 253, 254, 264, 350, 360, 362, 440, 442, 490N.
4. English and/or Foreign Language — LING 270 is required. Freshman and junior English composition courses taken to satisfy the University English composition requirement (see English Composition Requirement in the Graduation Requirements section of this catalog) may be used toward completion of these hours. Other possibilities include all English courses EXCEPT ENG 450A and 450B; any foreign language courses EXCEPT ML 410 and ML 445; HUM 107, 108, 109, 307, 308, 309 (these humanities courses may not count toward the general education requirements in both the English and/or foreign language field and the comparative arts and/or philosophy field).

If one course in each of the above fields does not add up to a total of 27 quarter hours, then a student must elect sufficient hours in one or a combination of the above areas to bring the total hours in general education to 27 quarter hours.

*Psychology:*

PSY 101 Gen. Psych. .... 5  
 EDEL 200 Studies of Children  
   OR HECF 160 Intro. to Child Devel.  
   OR PSY 173 Childhood Adolescent Psych. .... 4-5  
 PSY 332 Abnormal Psych.  
   OR PSY 333 Psych. of Personality  
   OR EDSP 272 Intro. to Educ. of Mentally  
     Retarded Children & Youth ..... 3-5  
 PSY 310 Motivation  
   OR LING 350 Intro. to Gen. Linguistics  
   OR PSY 307 Psycholinguistics  
   OR EDEL 400 Adv. Studies of Children  
   OR PSY 490A-Z ..... 4-5

*Professional Education:*

HSS 433 Professional Training Seminar ..... 3-4  
 EDCI 275 Learning Process in the Classroom OR  
   PSY 275 Educational Psychology ..... 5  
 EDCI 275L Learning Process in Classroom/Field Exp. .... 1  
 EDCI 401 Advanced Field Experience/Urban ..... 2  
 EDEL 311 Teaching of Reading in Elementary School ..... 4  
 EDEL 311L Teaching of Reading Elementary Sch./Field ..... 1  
 HSS 343 School and Clinical Programs ..... 2  
 EDGS 410 Human Relations ..... 3  
 EDSP 270 Classroom Management I ..... 1

EDSP 271 Intro to Educ. of Excep Child and Youth

OR PSY 376 Psy Dis of Child ..... 3-5

*Professional Laboratory Experience:*

EDPL 461 and 462 Stu. Tchng. .... 13  
 EDPL 465 Stu. Tchng. Seminar ..... 3  
 OR  
 HSS 437 Speech & Hearing Therapy in Pub. Schools ..... 4

The last three courses are taken concurrently in one quarter and constitute the required student teaching requirement. A person should make an application for student teaching by December 1 of the year prior to the year in which student teaching is to be taken. For example, anyone doing student teaching during any of the three quarters of the school year 1982-83 should apply for student teaching by December 1, 1981. For further information about student teaching, contact the Field Experience Office in McCracken Hall.

*Major Requirements:*

HSS 107 Voice & Articulation ..... 2  
 HSS 108 Intro. to Speech Disorders ..... 3  
 HSS 209 Phonetics ..... 4  
 HSS 210 Lang. Development ..... 5  
 HSS 240 Practi. .... 2  
 HSS 213 Anat. .... 4  
 HSS 250 Speech Science ..... 4  
 HSS 270 Basic Audiology ..... 4  
 HSS 222 Diagnostics. .... 4  
 HSS 318 Articulation Disorders ..... 4  
 HSS 315 Stuttering ..... 3  
 HSS 341 Prcti. .... 3  
 HSS 344 Disorders of Lang. .... 4  
 HSS 345 Social Dialects ..... 3  
 HSS 319 Voice & Resonance ..... 3  
 HSS 471 Auditory Rehabilitation ..... 5  
 HSS 479 Basic Manual ..... 3  
 HSS 442 Practi. .... 3  
 HSS 424 Neuropathology ..... 4

**STUDENT TEACHING**

Successful student teaching represents the culmination of the program of professional preparation; it is a requirement for the bachelor of science in education degree for persons pursuing programs which are designed to result in eligibility for teacher certification. No candidate will be considered for recommendation for a teaching certificate who has not completed, under the supervision of Ohio University, at least 13 quarter hours of observation, participation, and student teaching.

**Application**

It is the responsibility of the student to enter an application for student teaching in the office of the director of field experience not later than December 1 preceding the academic year in which a student teaching assignment is desired.

**Schedule and Facilities**

Students experience the complete range of the teacher's activities in full-time student teaching assignments for one quarter. Each student must plan carefully during the first three years of college to provide for a completely free quarter to engage in full-time student teaching. Majors in elementary education will follow a plan providing for student teaching in the last quarter of the junior year or the first or second quarter of the senior year. Majors in secondary academic areas and special

fields will normally be assigned to student teaching during one of the quarters of the senior year.

The assignment of each student to a school is the responsibility and prerogative of the director of field experience. Students will be assigned to one of our existing centers which are in the following areas: Belmont County, Chillicothe, Lancaster, Portsmouth, Zanesville, and Athens.

Students must secure their own housing and provide their own transportation to their assignments. Privately owned cars will be needed except by students assigned in metropolitan centers where public transportation is available. Students should not make definite plans to live in Athens during the student-teaching quarter since only a small percentage of those expressing a preference for the Athens area (commuting radius 40-55 miles) can be accommodated. The University assumes no responsibility for the transportation of students.

### Prerequisites for Student Teaching

Applicants are evaluated for admission to student teaching in terms of the prerequisites described in this section. Any exceptions are the responsibility of the director of field experience. The student teaching applicant is responsible for meeting the appropriate prerequisites prior to the opening of the quarter designated for student teaching on his or her application. In addition to the prerequisites detailed herein, applicants in health, music, industrial arts, physical education, home economics, and speech and hearing therapy must have approval of the appropriate departmental head.

Enrollment in student teaching is open only to Ohio University degree candidates or to degree holders who are completing Ohio certification requirements and who will be eligible for Ohio University's recommendation for an Ohio certificate upon the completion of student teaching.

Criteria for Admission (requirements must be completed by the time a student begins student teaching, not at the time of application).

1. General requirements
  - a. Completion of at least two quarters (30 quarter hours) of residence work at Ohio University. Transfer students must complete at least one-fourth of the preparation in the principal teaching field at Ohio University.
  - b. Completion of at least 135 quarter hours with an over-all grade-point average of 2.25.
  - c. Completion of all requirements to be admitted to advanced standing in professional education (Stage II) at least one quarter prior to starting student teaching.
  - d. Completion of junior level English composition requirement.
  - e. Completion of a significant portion (at least 75 percent) of the general education portion of the teacher education program the student is pursuing and all of the University General Education Tier I and Tier II requirements
2. Specific requirements for elementary education
  - a. Completion of the following courses with an accumulative g.p.a. of 2.30 with a minimum grade of C- in each course.
    - (1) EDCI 275 or PSY 275
    - (2) EDEL 200, 310, 311, 321, 330, 331, 340, 350, 372
    - (3) EDSP 271

- (4) EDCI 275L, EDSP 160, EDCI 401
    - (5) EDEL 310L, 311L, 321L, 330L, 331L, 350L
  - b. Completion of ART 360, MUS 161, and HPER 270.
3. Specific requirements for kindergarten certification
  - a. Completion of all special requirements for elementary education (see 2 above).
  - b. Completion of the following courses with a minimum grade of C- in each:
    - (1) EDEL 306
    - (2) EDEL 306L
  - c. Satisfactory completion of one full quarter of student teaching in elementary education.
4. Specific requirements for special education
  - a. Completion of all courses in blocks I, II, III, IV, and V with an accumulative g.p.a. of 2.30 with a minimum grade of C- in each EDSP course.
  - b. Completion of all field experience courses required in blocks I, II, III, IV, V and EDCI 401 with an accumulative g.p.a. of 2.30 with a minimum grade of C- in each.
  - c. A positive recommendation from the faculty members coordinating block III, IV and V based upon review by all faculty teaching in each block.
5. Specific requirements for secondary education
  - a. Completion of the following courses with an accumulative g.p.a. of 2.30 with a minimum grade of C- in each:
    - (1) EDCI 275 or PSY 275, EDSE 250, 270, 351, 420
    - (2) EDM 480A and specific methods courses
    - (3) EDSE 250L, 270L, 420L, EDCI 401
  - b. Completion of a major portion (at least three-fourths—75 percent) of the work in each of the teaching fields in which the student wishes to be certified.
  - c. An accumulative g.p.a. of 2.30 must be attained in each field for which certification is sought. In the case of comprehensive majors a 2.00 accumulative g.p.a. must be attained in each of the components
6. Specific requirements for speech and hearing therapy.
  - a. Completion of the following courses with an accumulative g.p.a. of 2.30 with a minimum grade of C- in each:
    - (1) EDCI 275 or PSY 275
    - (2) EDSP 271 or PSY 376
    - (3) EDSP 270, 474
    - (4) HSS 343
    - (5) EDEL 311, 311L
    - (6) EDGS 410
    - (7) EDCI 401
  - b. Completion of at least three-fourths of the major in hearing and speech science with an accumulative g.p.a. of 2.30 in the major and no grade lower than a C- in the major.
  - c. A favorable recommendation from the clinical coordinator in hearing and speech science.

### TEACHING CERTIFICATES

A student who plans to teach in Ohio makes application for a teaching certificate at the time of application for graduation.

Applications may be obtained from the Student Personnel Services Office, McCracken Hall. The teaching certificate is issued by the State Department of Education

and qualifies the student to teach the subjects indicated on the certificate.

Completion of requirements for graduation and of the professional courses required for certification does not insure that the individual will be recommended for certification. Instructors in various courses, and especially in courses in education and student teaching, will attempt to evaluate a student's fitness for the teaching profession in ways other than observation of academic performance in the classroom. Any reports of limitations which might tend to impair the individual's usefulness as a teacher in the public schools will be made a part of the record. When the student applies for certification this record will be examined and the question of his or her fitness for teaching will be given further consideration.

Students who are not planning to teach in Ohio should inform themselves concerning the requirements specified by the departments of education of the states in which they expect to teach.

### Reciprocity

Ohio now participates in the Interstate Agreement on Qualification of Educational Personnel and has already entered into an implementation contract with the following states:

Alabama	New Hampshire
California	New Jersey
Connecticut	New York
Delaware	North Carolina
District of Columbia	Oklahoma
Florida	Pennsylvania
Hawaii	Rhode Island
Idaho	South Dakota
Indiana	Utah
Maine	Vermont
Maryland	Virginia
Massachusetts	Washington
Nebraska	West Virginia

### Major Field of Specialization

The level of preparation in the major area of specialization must correspond with the outline on the preceding pages, even though these requirements in many instances exceed those shown in the state certification regulations.

### Second Teaching Field

The level of preparation in the second certifiable field must equal or exceed requirements shown in the regulations of the Division of Teacher Education and Certifica-

tion of the State Department of Education. Curriculum guides for minors are available in the Student Personnel Services Office, Room 124, McCracken Hall. The following minors have been approved:

Biological science  
Bookkeeping-basic business  
Chemistry  
Earth science  
Economics  
Educational media  
English  
French  
General science  
German  
Health education  
History  
Industrial arts  
Journalism  
Latin  
Mathematics  
Physics  
Physical education  
Political science  
Russian  
Social psychology  
Sociology and anthropology  
Spanish  
Speech

Any secondary, special field, elementary, or special education certificate can be validated to teach the following areas:

Data processing  
Driver education  
Reading

Requirements for these validation areas may be obtained in the Student Personnel Services Office, McCracken Hall.

### PLACEMENT

The Office of Career Planning and Placement, located in Lindley Hall, offers assistance to undergraduate and graduate students and alumni of the University who are seeking educational positions.

Information concerning available teaching and administrative positions in the public schools, as well as openings in education, student personnel, home economics, counselor education, industrial arts, and physical education departments of colleges and universities of most states and many foreign countries is disseminated through the bureau.



# College of Engineering and Technology

Richard Robe, *Dean*

Joseph E. Essman, *Assistant Dean*

The College of Engineering and Technology offers curricula leading to the bachelor of science degree in the fields of chemical, civil, electrical, industrial and systems, and mechanical engineering; and industrial technology. These curricula are focused on the engineering profession in which a knowledge of the mathematical and natural sciences gained by study, experience, and practice is applied to develop ways to utilize, economically, the materials and forces of nature for the benefit of humankind and the environment. Graduates have both the theoretical and practical training to begin professional careers or continue advanced work at the graduate level. Program flexibility is provided through options and electives so that the student may concentrate his or her studies in a chosen area within the department, or alternately use these electives in other areas such as law, business, or other professional fields.

All engineering curricula are fully accredited by the Engineers' Council for Professional Development, the Accreditation Board of Engineering and Technology (ABET), formerly the national accrediting organization for engineering programs.

The College of Engineering and Technology has been the recipient of an endowment of over seven million dollars from the late Dr. C. Paul Stocker, a distinguished alumnus. This unique endowment provides for Distinguished Professorial chairs, scholarships, and excellence in departments within the college.

With careful planning a student may, in addition to the bachelor of science degree from this college, obtain a second degree from the College of Arts and Sciences, the College of Business Administration, or the College of Fine Arts upon completion of 15 quarters in the University. (See "Degree, Second Bachelor's.")

In addition to the Financial Aids Program sponsored by the University, the College of Engineering and Technology and its departments have separately funded scholarships. The student should request information from the individual departments or from the office of the dean.

The U.S. Office of Education projections of engineering degrees indicate that, between now and 1985, the number of bachelor's graduates in engineering each year will average about ten percent below the projected needs. The estimate would include students who transfer into

four-year engineering baccalaureate programs after completing two-year engineering technician programs. The nation's needs for technical expertise to help solve our energy, transportation, food, housing, and balance-of-payment problems would be prime factors for this projected need-to-supply ratio.

## Degree Requirements

A candidate for a degree in the College of Engineering and Technology must satisfy all of the curriculum requirements which are applicable toward a degree of his or her particular field as specified on the following pages. In addition he or she must have a 2.0 (C) average on all courses attempted and which are applicable toward a degree, and a 2.0 (C) average on all courses in the College of Engineering and Technology which are attempted and which are applicable toward a degree. These averages will be computed on final hours and points in repeated courses, if any.

## Admission to an Engineering and Technology Program

Upon admission to Ohio University, an entering freshman who has an objective of obtaining a degree in engineering or industrial technology may request direct entry into the College of Engineering and Technology. The student should indicate the choice of discipline on the official application for admission to the University, assuring the assignment of a faculty advisor in the department of his or her choice. In the event a student has not decided upon the specific major within the college (area of concentration code #0910), the assistant dean will serve as his or her advisor until a choice of major is made. Students can readily change their majors both within the college and from college to college and at all times are eligible to take courses in all colleges of the University.

Students not requesting direct entry into the College of Engineering and Technology will be enrolled in the University College. These students should read the statements included in the *University College* section of this bulletin. Each student should indicate his or her choice of curriculum on the official application to the University. This will assist in the assignment of an advisor from the

University College staff and proper guidance for the student in the desired program of study. Students in University College with an interest in engineering are encouraged to contact the various departments and/or the dean's office in the College of Engineering and Technology for information and assistance in the planning of their programs of study.

Course requirements for the freshman year in each of the major departments within the College of Engineering and Technology are nearly identical. Hence, while it is desirable to indicate a specific major field of study earlier, a student seeking a degree in this college could defer a decision on a specific major field of study until the beginning of the sophomore year.

After completing degree requirements in the College of Engineering and Technology, the engineering student is qualified to seek, by examination, registration as a professional engineer from the Board of Registration for Professional Engineers of the state in which he or she intends to practice. It is to the student's advantage to take the examination during the spring or fall quarter closest to the expected time of graduation or as soon after graduation as is possible.

Graduate programs leading to the M.S. degree are available in all of the programs. In addition, graduate work leading to the Ph.D. degree is available in chemical and electrical engineering with post-master's work under consideration in the other engineering departments. These programs are described in detail in bulletins issued by the Office of Graduate Student Services of Ohio University.

Several departments have limited cooperative educational opportunities and internships with industries. Students interested in these programs should contact the specific department of interest.

### **Requirements for Continuing in the College**

A student enrolled in the College of Engineering and Technology who maintains an average of 2.0 (C) or better in all hours attempted at Ohio University which are applicable toward a degree and also in all hours attempted in the College of Engineering and Technology that are required for graduation (including required technical electives) continues in his or her program in a normal manner. Averages in either of these two categories below 2.0 (C) result in deficiency points and probation. The academic records of a student who is on probation or who acquires deficiency points in any quarter are reviewed by the student's department chairman and by the assistant dean of the college to determine if such student may continue in the program. A student who is placed on University probation at the end of any quarter must receive a minimum of nine quarter hours of credit with a 2.0 (C) or better average in his or her next quarter of attendance or be dropped from the University. These credits must be in courses directly applicable to the degree requirements. In the subsequent quarter the student's academic progress must be such that he or she is removed from probation or the student will be dropped from the University. Students who are placed on college probation at the end of any quarter must receive a 2.0 (C) average or better in subsequent quarters in their Engineering and Technology courses or they will be subject to being dropped from their programs. In addition, deficiency points in the engineering subjects must normally be removed within two quarters. Students on probation should

discuss the matter with their academic advisors, department chairmen, and/or the assistant dean of the college. Students who are dropped from the University or from the college may appeal the decision by contacting the department chairman or the assistant dean of the college.

### **Humanities-Social Science Electives**

Each major departmental curriculum includes an extensive program of study in the social sciences and humanities. Lists of courses, which satisfy this requirement, are maintained in each major departmental office and in the office of the dean.

### **English Requirement**

In addition to the curricula requirements as stated on the following pages for departments in engineering and technology, all students must also satisfy the University curricula requirements in English.

### **General Education Requirement**

Students should plan their curriculum to fulfill the general education requirements of the University, as described under the Graduation Requirements section of this bulletin.

### **Pass/Fail Option**

Students in the College of Engineering and Technology may elect to take courses on a pass/fail basis within eligibility requirements as stated in the *Credit and Grading* section of this bulletin.

### **Repeating a Course**

When a course is repeated, both grades continue to be used to determine the cumulative point-hour ratio until the student applies for and completes a repeated course form available in the office of the dean. A course may not be repeated after an advanced course in the same field has been passed if the course that the student desires to repeat was a prerequisite for the advanced course.

Course Credit by Examination or correspondence may not be used to earn credit in a course required for graduation which the student has previously failed.

## **BACHELOR OF SCIENCE IN CHEMICAL ENGINEERING**

The chemical engineering program is planned so that its graduates are familiar with the techniques used in analyzing and solving engineering problems associated with the chemical and related industries (petroleum, metallurgical, plastics, pollution control, etc.). In addition, the program provides an excellent background for graduate study in engineering, science, business administration, law, or medicine.

Study in chemistry, mathematics, physics, and communication skills is emphasized. Courses in engineering fundamentals are introduced, followed by intensive work in engineering analysis and design. Emphasis is placed upon the application of principles from many fields of study to the solving of engineering problems. Computer solutions, process control theory, economics, and similar

topics are stressed. Electives permit the student to pursue his or her interest in humanities, social sciences, and technical areas.

## Freshman

## Fall

ET 100 Engr. & Tech.	3
ET 180 Problem Solving	3
CHEM 141 Intro. College Chem.	5
Soc. Sci. or Hum. **	4 or 5

## Winter

MATH 263A Analyt. Geom. & Calc.	5
CHEM 142 Chem. Energetics	5
IT 101 Engr. Graphics*	3
Soc. Sci. or Hum. **	3 or 4

## Spring

MATH 263B Analyt. Geom. & Calc.	5
CHEM 143 Quant. Analys.	5
INCO 103*	4
Soc. Sci. or Hum. **	3 or 4

\*May be taken in any order

## Sophomore

## Fall

MATH 263C Analyt. Geom. & Calc.	5
CHEM 305 Organic Chem.	3
PHYS 251 Gen. Phys.	5
CHE 200 Intro. Chem. Engr.	4

## Winter

CHEM 306 Organic Chem.	3
PHYS 252 Gen. Phys.	5
CE 220 Statics	4
MATH 340 Diff. Equations	5

## Spring

CHEM 307 Organic Chem.	3
PHYS 253 Gen. Phys.	5
CHE 331 Prin. of Engr. Materials	4
CHEM 303 Organic Chem. Lab	1
Soc. Sci. or Hum. **	4

## Junior

## Fall

CHE 302 Thermo-Kinetics I	5
CHE 342 Unit Oper. I	5
CHE or Tech. Elec.	3 to 5
CHE 418 Materials Lab	2
CHEM 453 Phys. Chem.	3

## Winter

CHE 303 Thermo-Kinetics II	4
CHE 344 Unit Oper. III	5
CHE 363 Synthesis & Analys.	3
CHEM 454 Phys. Chem	3
Soc. Sci. or Hum. **	3 to 5

## Spring

CHE 304 Thermo-Kinetics III	4
CHE 400 Appld. ChE Calc.	5
CHEM 455 Phys. Chem.	3
CHEM 456 Phys. Chem. Lab	2
CHE 343 Unit Oper. II	4

## Senior

## Fall

CHE 415 Lab III-Unit Oper	3
CHE 442 Proc. Control	4
CHE 443 Design	5
EE 313 Basic Elec. Engr. I	3
CHE or Tech. Elec	

## Winter

CHE 417 Lab V-Proc. Control	2
CHE 444 Design	4
CHE 480 Colloquium	1
EE 314 Basic Elec. Engr. II or	
EE 315 Basic Elec. Machines	3
Technical Elective ***	3
Soc. Sci. or Hum. **	4

## Spring

CHE 416 Lab IV-Unit Oper.	3
CHE Elec.	3
Technical Elective ***	6
Soc. Sci. or Hum. **	3

The program listed above contains the minimum of 197 hours of required courses for the degree.

\*\*Note that, in general, courses outside the chemical engineering sequence can be taken at any time provided prerequisites have been met. A minimum of 24 hours must be taken in social sciences and humanities, with at least nine hours in each area.

\*\*\*Minimum list available in departmental office. These are courses in the areas of engineering, chemistry, mathematics, and physics. Minimum of 3 CHE and 9 Tech. Elect. hours required.

## BACHELOR OF SCIENCE IN CIVIL ENGINEERING

The civil engineering curriculum is designed to give the student a broad understanding of the basic physical sciences and mathematics. It provides a knowledge of civil engineering principles and practice in the areas of (1) engineering materials, including fluids and soils; (2) design of highways and other transportation facilities, including traffic control systems; (3) design and construction of structures of all types, and (4) environmental sanitation with particular emphasis on water supply and wastewater disposal. The curriculum also is designed to enhance the student's understanding of the world and its culture by introducing him or her to university-level study in humanities and social sciences.

Civil engineers are primarily responsible for planning the design and construction of all the nation's constructed facilities. They plan, produce, and help operate the nation's transportation system. They must develop yet conserve water resources. They have a large role in designing the country's environmental protection relating to water, air, and solid wastes. They are involved in housing and urban development. They study the earth's soils and oceans to serve people better.

Graduates are prepared to go on to advanced study or to find employment with consulting engineering firms, private corporations, or government agencies.

## Freshman

The following courses should be completed during the first year:

CHEM 121, 122, 123 Gen. Chem.	
ET 180 Problem Solving, MATH 263A, MATH 263B Geom. & Calc.	
IT 101 Engr. Drawing	
Freshman English composition, as recommended by English Department	
ET 100 Engr. & Technology	
INCO 103 Pub. Spkng.	
CE 210 Plane Surveying	
Take additional social science and humanities electives to complete schedule each quarter.	

## Sophomore

## Fall

MATH 263C Geom. & Calc.	5
CE 220 Statics	4
IT 121 Descr. Geom.	3
PHYS 251 Physics	5

## Winter

ET 240 Intro. to Computers	4
CE 321 Dynamics	4
PHYS 252 Physics	5
Elective	

## Spring

MATH 340 Diff. Equations	5
CE 222 Strength of Materials	4
CE 223 Strength of Materials Lab	1
PHYS 253 Physics	5

## Junior

<i>Fall</i>	
*CE 330 Struct. Theory I .....	5
CE 340 Fluid Mechanics .....	5
CE 341 Fluid Mechanics Lab .....	1
*GEOL 283 Geol. ....	5
<i>Winter</i>	
*CE 370 Soils .....	4
ME 321 Thermodynamics .....	4
*CE 311 Route Engr. ....	4
ISE 304 Statistics .....	3
<i>Spring</i>	
*CE 342 Appld. Hydraulics .....	3
*CE 343 Hydrology .....	4
*CE 361 Transportation .....	4
CHE 331 Prin. of Materials .....	4
Junior English composition, as required by English Department.	

## Senior

<i>Fall</i>	
*CE 450 Water Treatment .....	3
EE 313 Basic Elec. Engr. I .....	3
Elective .....	
<i>Winter</i>	
*CE 433 Steel Design .....	4
*CE 432 Concrete Design .....	4
*CE 451 Wastewater Treatment .....	3
EE 314 Basic Elec. Engr. II or	
EE 315 Basic Elec. Machines .....	3
Elective .....	
<i>Spring</i>	
Electives .....	

\*Course offered only during quarter shown.

Above list shows only courses specifically required for a civil engineering degree. In addition to these, 24 credit hours are required in the humanities and social sciences with no fewer than eight in either field. A list of acceptable electives is available in the civil engineering office.

Also, in addition, any three civil engineering courses taken from the list below are required: fall quarter — CE 471 Found., CE 424 Str. Mtls., CE 452 Wtr. Anal.; winter quarter — CE 331 Struct. Th., CE 415 Photo., CE 457 Wtr. Res., CE 462 Traffic; spring quarter — CE 434 Struc. Des., CE 481 Pavement Design, CE 410 Surveying II.

Qualified students may, with the permission of the instructor, substitute certain graduate-level courses for the foregoing civil engineering electives.

Additional 11 hours of any approved engineering, science, or other elective courses are also required.

A list of acceptable courses for these is available in the civil engineering office.  
A minimum of 192 quarter hours of credit is required for the degree.

## BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING

The Department of Electrical Engineering is located in Clippinger Research Laboratory, a modern facility housing undergraduate, graduate, and research activities of the department. The department has recently received a four-million-dollar endowment from the late Dr. C. Paul Stocker, an electrical engineering alumnus. It is expected that the endowment will provide opportunities for improvements and excellence superior to any in the country.

Electrical engineering addresses the wide application of electrical and electronic phenomena to real-world needs, from consumers to space exploration. It encompasses such diverse areas as research, development, design, sales, and operation of electrical and electronic systems. Areas of specialization include such varied fields as circuit design, communications, computers and automata, control systems, electromagnetics, energy sources and systems, power transmission and distribution, electronics, and instrumentation. In addition to the above specialties, a unique program in avionics has been developed around

specific applications of the preceding broad specialties to aircraft navigation and landing systems.

Electrical engineering graduates hold numerous challenging positions in many nonelectrical industries such as chemical, nuclear, automotive, medical, textile, petroleum, and transportation, to name only a few, as well as positions in electronics, communications, power, control, and other electrical industries. The job functions performed by electrical engineering graduates include many diverse activities, such as research, development, design, production and manufacturing, and consulting.

Following a freshman year which is essentially common to all engineering degree programs, the electrical engineering student is promptly introduced to digital computers, and modern electronic instrumentation. The remainder of the sophomore year and the junior year provide a solid analytical foundation for all of the various electrical engineering specialties. The senior year provides an opportunity for the student to specialize in those areas he or she finds most interesting. Courses may be chosen from communications, power systems and energy conversion, network theory, electronics, avionics, electromagnetic fields, computer systems, control systems, and others. For students seeking greater depth or breadth, electrical engineering offers programs leading to the M.S.E.E. and Ph.D.

Students may earn internship credit by participating in approved internship programs with industry. Approved internship may be applied toward the graduation requirement.

Ohio University is unique in offering an option in avionics engineering. Recognition of our graduates by government and industry means employment opportunities in a dynamic, exciting technical-specialty field. Courses which are part of the avionics curriculum include digital technology, control, circuits, electronics, electromagnetics, and communications as basic elements.

The Ohio University Avionics Engineering Center is extraordinary in providing undergraduate electrical engineering majors direct field and laboratory experience on real-world avionics projects sponsored by federal agencies and industry. Internship course credit can be granted for laboratory work performed, and a number of part-time jobs are supported for qualified students. Interns work directly with the professional faculty and staff on a variety of projects involving instrument landing systems, navigation processors, test flight evaluation, and low frequency navigation sensor systems. A recommended list of technical elective courses is available at the center.

## Freshman

<i>Fall</i>	
ET 100 Engr. & Tech. <sup>1</sup> .....	3
ET 180 Problem Solving .....	3
CHEM 121 Intro. to Chem. ....	4
Elective <sup>2</sup> .....	4-5
<i>Winter</i>	
MATH 263A Analyt. Geom. & Calc. ....	5
CHEM 122 Chem. of Solutions or other	
natural science <sup>3</sup> .....	4
IT 101 Engr. Graphics <sup>4</sup> .....	3
Elective <sup>2</sup> .....	3-5
<i>Spring</i>	
MATH 263B Analyt. Geom. & Calc. ....	5
CHEM 123 Environ. Chem. or other	
natural science <sup>3</sup> .....	4
INCO 101 Fundamentals of Speech or	
INCO 103 Pub. Spkng. <sup>4</sup> .....	3-4
Elective <sup>2</sup> .....	3-5
Freshman English Composition .....	

*Notes on freshman year:*

1. ET 100 may be taken any quarter of the freshman year.
2. Electives in the freshman year are normally taken in the humanities/social sciences area. Exceptions must be approved by a faculty advisor.
3. Alternatives to chemistry must be both in the same area. Approved areas are life-sciences (biology, zoology, and botany) and earth sciences (geology) and should be chosen only after consultation with a faculty advisor.
4. There is no preferred order on IT 101 and INCO 101/103.

## Sophomore

*Fall*

MATH 263C Analyt. Geom. & Calc.	5
PHYS 251 Gen. Physics	5
EE 210 Circuit Analys. I	4
ET 240 Intro. to Dig. Comput. Solution of Engr. Prob.	4

*Winter*

MATH 340 Diff. Equations	5
PHYS 252 Gen. Physics	5
EE 211 Circuit Analys. II	4
EE 221 Inst. & Comp. Lab. II	3

*Spring*

EE 212 Circuit Analys. III	4
EE 222 Instru. & Comput. Lab. III	3
EE 232 Analyt. Found. of Elect. Engr.	5
Elective <sup>5</sup>	3-5

## Junior

*Fall*

EE 301 Intern. Lab. I	1
EE 310 Linear Systems & Networks I	4
EE 330 Energy Conversion I	4
EE 340 Electronics I	4
Elective <sup>5</sup>	3-4

*Winter*

EE 302 Intern. Lab. II	1
EE 321 Electromagnetics & Materials I	4
EE 331 Energy Conversion II	4
EE 341 Electronics II	4
Elective <sup>5</sup>	3-4

*Spring*

EE 303 Intern. Lab. III	1
EE 312 Linear Systems & Networks III	4
EE 322 Electromagnetics & Materials II	4
EE 490T Distributed Circuits	2
Elective <sup>5</sup>	4-6

Junior English Composition: English 305J —  
technical writing course, preferred

*Note on sophomore and junior years.*

- 5 These elective spaces should be utilized to satisfy requirements CE 220, CE 222, ME 321, and PHYS 316. Additional available time may be applied toward satisfaction of humanities/social sciences requirements.

## Senior

*Fall*

EE 401 Adv. Lab. I <sup>6</sup>	1-3
Technical Elective <sup>7</sup>	9
Elective <sup>8</sup>	5-7

*Winter*

EE 402 Adv. Lab. II <sup>6</sup>	1-3
Technical Elective <sup>7</sup>	6
Elective <sup>8</sup>	8-9

*Spring*

EE 403 Adv. Lab. III <sup>6</sup>	1-3
Technical Elective <sup>7</sup>	6
Elective <sup>8</sup>	8-9

*Notes on senior year*

- 6 Total senior lab (EE 401, 402, 403) requirement is five hours with a minimum of one hour in each quarter and three different areas.
- 7 Senior technical electives are normally 400 level EE courses, although a few alternates are acceptable on special programs

with the approval of the faculty advisor. Total technical elective requirement is 21 hours minimum.

8. May be divided between humanities/social science electives (consult departmental office for acceptable courses) and free electives subject to these requirements:
  - a) humanities/social science hours total (over four years) is 25 hours minimum, with no fewer than eight hours in either area;
  - b) total program earned hours minimum is 192 hours.

Students transferring from other institutions should consult with the EE office to determine the remaining requirements for the completion of the degree.

## BACHELOR OF SCIENCE IN INDUSTRIAL AND SYSTEMS ENGINEERING

Industrial and systems engineers obtain a broad technical background with special attention to productivity, costs, quality, and the human factor in production and other systems. They design and supervise installation of facilities for production of goods and services including the layout of buildings, machines, and equipment, taking into account such vital factors as ecology, energy conservation, safety, and health. They also design and supervise installation of computer systems with applications to production, marketing, banking, and health care. Industrial and systems engineers develop performance measures and standards for equipment, workers, and factories to achieve more effective utilization; and they translate technical designs of other fields of engineering and science into production or other practical applications.

Courses in the first two years of the program are similar to the curricula of other engineering departments, and provide the necessary foundation in basic subjects upon which advanced engineering work depends. The last two years of work provide the professional level material, including computer-related instruction, necessary for the interdisciplinary activities that are required of the modern industrial or systems engineer.

Industrial and systems engineers follow careers in many fields: manufacturing, transportation, government; and for those interested in computers and information processing: banking, insurance, and hospitals. Many industrial and systems engineers move into management positions after a few years of experience. Salaries are excellent and jobs are plentiful. The U.S. Department of Labor statistics show that there will be on the average two job openings for every industrial engineer graduating in the foreseeable future.

## Freshman

*Fall*

ET 100 Engr. & Tech.	3
ET 180 Problem Solving	3
CHEM 121 Intro. to Chem.	4
OR	
CHEM 141 Intro. to College Chem	5
Electives <sup>9</sup>	

*Winter*

MATH 263A Analyt. Geom. & Calc.	5
CHEM 122 Chem. of Solutions	4
OR	
CHEM 142 Chem. Energetics	5
INCO 103 Pub. Spkng	4
Electives <sup>9</sup>	

*Spring*

MATH 263B Analyt. Geom. & Calc.	5
MATH 211 Elem. Linear Algebra	5
IT 101 Engr. Drawing	3
IT 117 Engr. Metals	3

## Sophomore

## Fall

MATH 263C Analyt. Geom. & Calc. ....	5
PHYS 251 Gen. Physics.....	5
CE 220 Statics .....	4
ISE 231 Intro. to Indust. & Systems Engr. ....	2

## Winter

MATH 340 Diff. Equations.....	5
PHYS 252 Gen. Physics.....	5
ACCT 101 Managerial Acct. ....	4
ET 240 Intro. to Comput. Solutions .....	4

## Spring

PHYS 253 Gen. Physics.....	5
ISE 304 Appld. Engr. Stat. ....	3
CE 222 Strength of Materials .....	4
ISE 330 Engr. Economy .....	3

## Junior

## Fall

ISE 305 Engr. Stat. I .....	3
ISE 333 Work Design .....	5
ME 224 Dynamics .....	4
CE 223 Strength of Materials Lab. ....	1
Electives* .....	

## Winter

ISE 306 Engr. Stat. II .....	3
ISE 415 Intro. to Systems Engr. ....	3
ISE 435 Quality Control .....	3
EE 313 Basic Elec. Engr. I .....	3
ENG 305 Tech. Wrtng. ....	4
Electives* .....	

## Spring

ISE 448 Human-Machine Systems.....	3
CHE 331 Prin. of Engr. Materials.....	4
ME 321 Intro. to Thermodynamics.....	4
EE 314 Basic Elec. Engr. II.....	3
OR	
EE 315 Basic Elec. Engr. ....	3
Electives* .....	

## Senior

## Fall

ISE 432 Inventory Control I .....	3
ISE 441 Oper. Research .....	3
ISE 445A Systems Design I .....	3
Electives* .....	

## Winter

ISE 440A Indust. Plant Design I .....	2
ISE 433 Indust. Comput. Applic. ....	5
Electives* .....	

## Spring

ISE 445B Systems Design II .....	3
ISE 440B Indust. Plant Design II .....	3
Electives* .....	

University English composition requirements must be met. Any courses taken in fulfillment of these requirements can be counted as free electives as defined below.

\* A minimum of 47 hours of electives is required including

- 26 hours in social sciences and humanities with at least eight hours in each area and at least one sequence of eight hours or more within a single department
- 6 hours in industrial systems engineering
- 3 hours in the physical or life sciences
- 3 hours in the engineering sciences
- 9 hours of electives may be freely chosen

Students with an interest in the life sciences should consult with their ISE advisors about substituting up to 10 hours of life science courses for required physical science courses.

Students may specialize in one of a wide variety of fields by the proper choice of electives. We urge students to come to their advisors or the department office for detailed information about electives.

## Mining Systems Engineering Option

Students may earn a bachelor of science degree in industrial and systems engineering with a concentration in

mining systems engineering. The program prepares engineers to enter the coal mining industry, which has become extremely important to the U.S. as a result of the energy crisis. Mining systems engineers would be involved in production methods, planning for mining operations, project engineering, and mine management. Job opportunities are plentiful.

About one-half year of the program will consist of courses taken in other educational institutions with specialized mining programs. These courses are in mining fundamentals, mine ventilation, mine surveying, mine law and safety, mine material handling, and mine design. The balance of the program may be taken at Ohio University. Students who have attended mining technology programs are especially encouraged to apply.

Program requirements are listed below for students who complete a two-year mining technology degree. Other interested persons should write for more information to:

Mining Systems Engineering Program  
Department of Industrial and Systems Engineering  
Ohio University, Athens, Ohio 45701

## Mining Systems Option Two-plus-two Program with Two-year Technical Institutes

## First Two Years

The first two years of the mining systems engineering option can be completed in mining technology programs at such institutions as Rio Grande, Belmont Tech, and West Virginia Tech. Students who enter these institutions planning to finish their degree work here should substitute academic mathematics and science courses for technical mathematics, science, and training courses.

## Third Year

## Fall

CE 220 Statics.....	4
ET 240 Intro. to Comput. Syst.....	4
ISE 305 Engr. Stat. I .....	3
CHEM 141 Intro. to Coll. Chem.....	5
Hum or Soc Science .....	4

## Winter

MATH 340 Diff. Equations .....	5
CE 222 Strength of Matr. ....	4
ISE 306 Engr. Stat. I .....	3
Geology Elective** .....	4
Hum or Soc Science .....	3

## Spring

ME 224 Dynamics .....	4
ME 321 Intro. to Thermodynamics.....	4
CE 350 Mech. of Mine Design .....	4
MATH 211 Elem. Linear Algebra .....	5

## Fourth Year

## Fall

ISE 330 Engr. Econ. ....	3
ISE 333 Work Design .....	5
ISE 432 Inventory Control I .....	3
ISE 441 Op. Research .....	3
Geology Elective** .....	4

## Winter

CE 340 Fluid Mech. ....	5
ISE 419 Explosives .....	3
ISE 433 Indust. Comput. Applic.....	5
CHE 490 Fossil Fuels or	
ISE 429 Coal Preparation .....	4 or 3

## Spring

ISE 450 Mine Systems .....	3
ISE 448 Human-Mach. Systems.....	3

Hum or Soc Science .....	8
Engr. Elective.....	4

\*\*Electives to be chosen from the following list

310 or 314 315  
330  
350  
353

## BACHELOR OF SCIENCE IN INDUSTRIAL TECHNOLOGY

This program is designed to prepare personnel for responsibility in production areas of the manufacturing industry. Typical positions available to industrial technology graduates relate to production supervision, process engineering, maintenance, and related areas. A minimum of 192 quarter hours, which includes all specified degree requirements, is necessary for graduation.

Courses in mathematics, sciences, and data processing are included in order to build channels for communication with engineering personnel. Management-oriented courses are provided to assist in developing understanding of the industrial environment. Special emphasis is placed upon procurement of technical knowledge related to drafting, electronic and fluid power control, common materials, and the techniques available for forming, machining, and joining the materials of industry.

Alternate fields of specialization are available according to the selection of restricted electives.

Two-year A.A.S. degrees in industrial technology with manufacturing design options are available at the Ohio University Lancaster campus.

### Degree Requirements

#### 1. Required IT Courses: 64 hours

IT 101 Engr. Drawing .....	3
IT 102 Engr. Drawing .....	3
IT 115 Metal Fabrication .....	4
IT 216 Metal Machining .....	4
IT 220 Small Engines .....	3
IT 244 Graphic Proc .....	3
IT 250 Wood Indust .....	3
IT 252 Comp Mfg Methods .....	4
IT 260 Line Supervision .....	3
IT 308 Plastics .....	3
IT 310 Metal Casting .....	3
IT 320 Hydraulic Controls .....	3
IT 332 Electronics .....	5
IT 333 Sem: Conductors .....	3
IT 341 Proc. Photo .....	3
IT 347 Plastics Proc .....	3
IT 362 Product Manufacture .....	5
IT 390 Materials .....	3
IT 421 Power Transmission .....	3

#### 2 Required IT Electives: 19 hours

The following IT courses are acceptable: 104, 105, 121, 122, 201, 301, 302, 309, 311, 312, 315, 318, 319, 321, 323, 335, 342, 350, 351, 361, 363, 395, 396, 413, 435, 436, 443, 443, 444A, 490.

The following IT courses are not acceptable: 080, 109, 117, 200, 300, 380, 381, 391, 405A, P, 470, 471, 472, 484B.

#### 3 Required Non-IT Courses: 79 hours

- a. English proficiency: 5 hr freshman, 5 hr junior (IT 370 required for juniors unless the student passes the proficiency exam.)

If student passes proficiency exam then hours are added to free electives.

- b. Gen. Educ.: 12 hrs, selected from any three of the following areas:

Comp. Arts, For. Lang, Phil, Anthro, Soc, Hum, or Eng Lit. (Courses taken for Eng. Prof. requirement do not count for Eng. Lit.)

- c. MATH 118, 163A
- d. INCO 101
- e. CHEN 121, 122
- f. PHYS 201, 202
- g. ECON 101
- h. PSY 101, 121
- i. ACCT 101
- j. MKT 301
- k. MGT 200, MGT 425

#### 4. Required Area of Specialization — 3 Options

Select courses 200 level or above from one of the following options:

- a. Management Option: 20 hours  
Business Adm, QM, Mkt, or Mgt (MGT 300 not acceptable)
- b. Technical Option: 20 hours  
Engr, Math, Comp, Science
- c. Industrial Arts Education Option: 38 hours (approx)  
Look under the College of Education listing in this catalog for required courses.

#### 5. Free Electives: 10 hours

If student passes English proficiency exam then hours are added to free electives (max. free electives, 16 hrs)

### First-Year Program

The following courses are suggested as suitable for the first year. All will apply for full-credit regardless of program option selected at a later date. Each student should make an appointment at the department office to discuss the program before enrollment beyond the first year.

#### Fall

IT 115 Metal Fabrication.....	4
CHEM 121 Prin. of Chem. ....	4
IT 101 Engr. Drawing.....	3
MATH 118 Applied Math.....	4
INCO 101 Fundamentals of Speech .....	3
	<u>18</u>

#### Winter

IT 102 Engr. Drawing .....	3
CHEM 122 Prin. of Chem.....	4
ECON 101 Prin. ....	4
MATH 163A Intro. to Calc. ....	4
	<u>15</u>

#### Spring

IT 220 Small Engines .....	3
ACCT 101 Managerial Acct. ....	4
English Prof. ....	5
PSY 101 Gen. Psych. ....	5
	<u>17</u>

### Transfer Students

A program is available for students who transfer credits earned while obtaining their associate degrees in some field of engineering or technology from another approved school. Those accepted into this program are assigned junior standing and are furnished checksheets showing the remaining hours of upper-level requirements specified for attainment of the bachelor's degree.

### TEACHING INDUSTRIAL ARTS

Students who desire to teach industrial arts normally enroll for the bachelor of science in education degree. Requirements for this degree are listed in the College of Education section of this catalog.



A teaching option is provided under the industrial technology program through utilization of both associated and unrestricted electives to satisfy requirements for certification. Students interested in this option should declare their intent no later than the first quarter of the junior year in order that exact requirements can be determined and scheduled prior to graduation.

## TEACHING DRIVER EDUCATION

Specialized courses in driver and safety education, as required for teacher certification, are provided by the Department of Industrial Technology. Those wishing to obtain this certification should check at the College of Education to learn the specific requirements for their programs.

## BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING

Mechanical engineering is concerned with (1) the economical and ecological conversion of energy from natural sources to provide power, heat, cooling, and propulsion; (2) the design of all types of machines, engines, and vehicles; (3) the processing of materials into useful products; and (4) the development of systems for using machines and resources. Professional areas include research, development, design, testing, production, operation and maintenance, marketing and sales, and administration.

The curriculum provides the versatile academic preparation required to enter the profession and the fundamentals of a liberal education. Theoretical analysis, practicality, laboratory skills, and design synthesis are all important aspects of the program. Specialization is provided by elective courses during the senior year.

Students majoring in mechanical engineering as preparation for entry into other professions such as law, medicine, business, etc., should consult with the department chairman regarding schedule modification required to meet specific career objectives.

The Mechanical Engineering Department offers a co-op program which allows those students who wish to do so to acquire practical experience and income by working in industry after completion of the sophomore year. Junior and senior courses are scheduled to accommodate a work-academics plan based on alternate two-quarter periods of study and work. Schedule A co-op students will attend classes during the fall and winter quarters and work during the spring and summer quarters. Schedule B students will work during the fall and winter quarters and attend class during the spring and summer quarters. Students who are interested in the co-op program should consult with the department chairman.

### Freshman

<i>Fall</i>	
CHEM 141 Intro. College Chem. ....	5
ET 100 Engr. & Tech. ....	3
ET 180 Problem Solving. ....	3
Freshman English Qualification <sup>1</sup> .....	

### Winter

CHEM 142 Chem. Energetics ....	5
IT 101 Engr. Drawing ....	3

MATH 263A Analyt. Geom. & Calc. ....	5
Hum. & Soc. Sci. Elec. <sup>6</sup> .....	3

### Spring

CHEM 123 Environ. Chemistry .....	4
Hum. & Soc. Sci. Elec. ....	3
INCO 103 Pub. Spkng. ....	4
MATH 263B Analyt. Geom. & Calc. ....	5

### Sophomore

#### Fall

CE 220 Statics .....	4
PHYS 251 Gen. Physics .....	5
MATH 263C Analyt. Geom. & Calc. ....	5
IT 121 Descr. Geom. ....	3

#### Winter

ME 224 Dynamics .....	4
PHYS 252 Gen. Physics .....	5
IT 117 Metlwkg. for Engrs. ....	3
ET 240 Intro. to Comput. ....	4
Hum. & Soc. Sci. Elec. ....	3

#### Spring

CE 222 Strength of Materials .....	4
CE 223 Strength of Materials Lab. ....	1
PHYS 253 Gen. Physics .....	5
MATH 340 Diff. Equations .....	5
ME 290 Elements & Systems Lab .....	2

Junior and senior mechanical engineering courses are offered on a different schedule during alternate years. This schedule accommodates those students who wish to participate in the co-op program without affecting the progress of regular four-year students. However, the sequence of courses for regular students will depend on whether the student becomes a junior during an odd-numbered or even-numbered year, as indicated by the following schedules:

### Junior 1981/82

#### Fall

ME 321 Intro. to Thermodynamics .....	4
ME 322 Intro. to Thermo Lab. ....	2
ChE 331 Prin. Engr. Materials .....	4
CE 340 Fluid Mechanics .....	5
EE 313 Basic EE I (circuits) .....	3

#### Winter

ME 328 Applied Thermodynamics .....	5
ME 412 Heat Transfer .....	5
EE 314 Basic EE II (electronics) .....	3
ENG 305 Technical Writing .....	4

#### Spring

ME 301 Kinematics of Machines .....	3
ME 403 Machine Design I. ....	4
ChE 418 ChE Lab-Materials .....	2
EE 315 Basic EE III (power) .....	3
Hum. & Soc. Sci. ....	5

### Senior 1981/82

#### Fall

Technical Electives .....	4
ME 401 Systems Analysis & Controls .....	4
ME 404 <sup>4</sup> Machine Design II. ....	4
ME Senior Lab <sup>2</sup> .....	3
ME 480 Symposium <sup>3</sup> .....	1
EE 304 Basic EE II Lab .....	1

#### Winter

Technical Electives <sup>5</sup> .....	6
Hum. & Soc. Sci. ....	8
ME 480 Symposium .....	0
EE 305 Basic EE II Lab .....	1

#### Spring

ME 313 Metal Processing .....	3
ME 417 <sup>4</sup> Design of Thermal Systems .....	4
ME 491 Mechanical Vibrations I. ....	3

ME 480 Symposium .....	0
ME 450 Computer-Aided Design.....	4
Hum. & Soc. Sci. ....	4

## Junior 1982/83

## Fall

ME 301 Kinematics of Machines .....	3
ME 321 Intro to Thermodynamics .....	4
ME 403 Machine Design I.....	4
ChE 331 Prin. Engr. Materials .....	4
EE 313 Basic EE I (circuits) .....	3

## Winter

CE 340 Fluid Mechanics .....	5
EE 314 Basic EE II (electronics) .....	3
ME 322 Intro. to Thermo. Lab .....	2
ENG 305 Technical Writing .....	4
Hum. & Soc. Sci. ....	4

## Spring

ME 302 Dynamics of Machines .....	3
ME 328 Applied Thermodynamics .....	5
ME 412 Heat Transfer.....	5
ChE 418 ChE Lab-Materials.....	2
EE 315 Basic EE III (power) .....	3

## Senior 1982/83

## Fall

ME Senior Lab <sup>2</sup> .....	3
Technical Electives <sup>5</sup> .....	6
Hum. & Soc. Sci. ....	4
ME Symposium <sup>3</sup> .....	1
EE 304 Basic EE I Lab .....	1
ME 302 Dynamics of Machines .....	3

## Winter

ME 313 Metal Processing .....	3
ME 417 <sup>4</sup> Design of Thermal Sys. ....	4
ME 450 Computer-Aided Design.....	4
ME 491 Mechanical Vibrations I.....	3
EE 305 Basic EE II Lab .....	1

## Spring

ME 401 System Analysis & Controls .....	4
ME 404 <sup>6</sup> Machine Design II.....	4
Hum. & Soc. Sci. ....	7
Technical Elective .....	4

## Notes:

1. All students must meet University freshman and junior English standards.
2. To satisfy this requirement one may select: ME 430 — Applied Thermodynamics Lab (3); ME 418, 419, 420 — Mechanical Engineering Experimentation (3); or ME 484 — Problems in Thermal Machinery (3).
3. Attendance at the ME Symposium is required of all ME students during their last three quarters on campus.
4. Students interested in mechanical design should enroll in ME 404 while those interested in thermal design should enroll in ME 417.
5. Technical elective to be selected in consultation with your advisor.
6. 25 hours of humanities and social sciences with at least nine hours in each area required. At least ten of these hours must be at or above the 300 level. The sequence must include a course in macroeconomics.

## College of Fine Arts

Henry H. Lin, *Dean*

James H. Conover, *Associate Dean*

Barbara F. Mantel, *Assistant to the Dean*

The College of Fine Arts includes the School of Art, the School of Dance, the School of Music, the School of Theater, the Department of Comparative Arts, and the Department of Film. A broad, cultural education in the fine arts is offered, as well as specialized training in the following areas: graphic design, art therapy, art history, art education, ceramics, painting, photography, print-making, sculpture; applied music, music education, music history and literature, music theory and composition, music therapy; acting, production design, playwrighting, theater education, and children's drama.

### Admission Requirements

In addition to general acceptance for admission to Ohio University, students transferring from other colleges and universities are required to audition, submit a portfolio or meet other requirements prior to final acceptance as majors in the College of Fine Arts. Applicants are advised to write for detailed information to the director of the particular program in which they are interested.

Ohio University students requesting admission into major programs of the college may also be required to meet the above criteria, and should consult the appropriate director prior to arranging for transfer.

A high school applicant to Ohio University who wishes to pursue a degree program in the College of Fine Arts may apply for direct entry into the college. The applicant is strongly urged to audition if he or she desires direct entry into programs in the School of Dance, School of Music, or School of Theater. Students requesting direct entry who are not screened in this manner will be accepted into their majors on a provisional basis only. Final acceptance into a major program will require an audition or portfolio review.

Students who are uncertain about their choice of major are encouraged to delay their entry into the College of Fine Arts until they have been in attendance at the University for at least one quarter and have taken some courses in the area of primary interest.

### Degrees and General Requirements

The bachelor of fine arts degree is granted upon the completion of a program in the School of Art, the School

of Dance, or the School of Theater. The School of Music grants the bachelor of music degree. These degrees fulfill four functions: to provide the student with specialized training in one of the fine arts; to provide a firm foundation for professional achievement; to provide a cultural background through a study of the relationship of all the arts; and to prepare the student, as far as possible, to become a responsible member of society. To these ends, the programs have been kept flexible to meet individual needs.

Candidates for most degree programs in the College of Fine Arts must complete a minimum of 192 quarter hours with a total point-hour ratio of at least 2.0 (C). The minimum number of quarter hours for some degree programs is higher, varying according to the academic program involved.

The work of each student in the College of Fine Arts and its various schools will be reviewed no less than once a year by the faculty. When appropriate, the student will be notified of the faculty's assessment of his or her program and use of talent. In cases of warning or denial of further registration as a degree candidate in a specific program, the student will receive a written notice. In the event of denial, the student is still free, subject to University regulations, to change to another degree objective offered by the College of Fine Arts. If preferred, the student may apply for transfer to another academic division of the University, and subject to regulations, continue to register for coursework in the College of Fine Arts on an elective basis.

Further, a student with outstanding qualifications may request from his or her advisor consideration for acceleration by the waiver of certain required courses.

### Advising

Each school in the College of Fine Arts maintains a system of academic advising for its majors, with assigned members of the faculty to serve in such capacity. The advisor keeps a current academic record for each student under his or her supervision, and is available for counseling and assisting the student in planning courses, making sure that all requirements for the major are met. Deviations from the normal course requirements, including waivers, must be approved in writing by the advisor.

In some cases, additional approval by a faculty committee is required. Students are urged to meet with their advisors regularly, especially prior to registration, to ascertain that they are following an approved course of study. Students may check with the directors of their schools to learn the names of their advisors.

In any case, each student should understand that he or she alone has the ultimate responsibility for making certain that all academic requirements are met for graduation.

### Dual Majors

In some cases, a student may wish to pursue a major in two related fields simultaneously, earning a dual major. All course requirements in each major must be met. Some courses, including electives, may be considered as satisfying a requirement in both majors, but the credit hours for each course will be tallied only once. So long as curriculum requirements are met for each major, additional credit hours are not required.

Although students may take minors offered elsewhere in the University, formal minors are not offered by the college.

### Pass/Fail Option

Students may take a limited number of courses outside their majors on a pass/fail basis. A list of courses excluded from this option is maintained in the office of the dean.

### Scholarships and Awards

There are a limited number of scholarships and awards of varying amounts available to majors in the College of Fine Arts. Some awards are renewable; others are granted on a one-time basis, renewable only at the discretion of the school involved. In all cases, technical performance is as important as academic achievement. Interested students should contact the director of the appropriate school well before January 1 so that arrangements may be made for the appropriate audition or portfolio submission.

## SCHOOL OF ART

Abner Jonas, *Director*

The School of Art seeks to establish a foundation for critical thinking, to equip students with basic art skills and concepts; and to contribute to individual, creative growth. High standards of critical awareness are achieved through the learning of the language and theory of art, through the study of the historical development of art, and through classroom and individual critiques. Studio courses offer experience with tools and concepts leading to the acquisition of technical skills and esthetic awareness. Our programs are structured to serve individual goals and to permit personal growth; students may elect courses from throughout the University that will complement their interests and may serve as a basis for their ideas and concepts. Though our program is based upon tradition, the inclusion of contemporary concepts, techniques, and attitudes forms an important part of our cur-

riculum. Our undergraduate program is enriched by the presence of a vital graduate program.

The School of Art offers specialized training leading to the bachelor of fine arts (B.F.A.) degree in art education, art history, art therapy, ceramics, graphic design, painting, photography, printmaking, sculpture, studio arts, or visual communication (see Institute of Visual Communication section for program description). Many of our graduates become teachers; enter graduate schools; become professional artists, designers, or photographers; or enter other art-related fields.

All students planning to become art majors enter the School of Art as premajors. Transfer students may submit portfolios to areas after having completed approximately 40 quarter hours of coursework. A comprehensive selection of courses at the freshman level familiarizes students with basic art concepts and provides initial experience in a variety of specific study areas. Sophomore students usually select courses in the areas of their particular interests. Also, during the third quarter of the sophomore year, students submit a selection of work to a major area for review for acceptance as majors, except for students wishing to major in photography who submit portfolios for entrance into ART 295 (Intermediate Photography). At the junior level, most students will be enrolled in advanced courses in their major areas. The program for seniors includes practicum courses offering preparation for senior presentations and portfolios.

Our dedicated and experienced faculty of artist/teachers is professionally active. In addition, other artists and artist/teachers are invited to visit the School of Art for lectures, exhibits, and/or critiques. Through a series of regularly scheduled exhibits, Seigfred Gallery offers students an opportunity to see a variety of original work including a series of graduate student exhibits each spring.

Our extensive and diverse facilities enable us to offer specialized courses in a variety of areas which include, among others, hot glass, typography, stone lithography, lost-wax casting, and color photography.

Students have numerous opportunities in the school and on campus for exhibition of their works including an annual undergraduate student show, a graphic design show, and senior shows. Recognition of outstanding art students is made through the Edna Way Scholarship fund, the Dean's Achievement award, the Krecker prize, and the Rogers award in art.

Students are strongly encouraged to consult regularly with an advisor concerning their selection of courses and progress toward fulfillment of degree requirements. A student may contact the School of Art advisor in Seigfred 528 or consult with the chairman of the major area. Art majors may review their own records in the School of Art office.

## MAJOR AREAS AND REQUIREMENTS

Prior to graduation, all students must satisfy the requirements of Ohio University and of the School of Art. For clarification of the Tier I and Tier II requirements, please refer to the section entitled "General Education Requirement". For clarification of the English requirement, please refer to the section entitled "English Composition Requirement".

### Art Education Major (Major Code #5122)

The B.F.A. degree program in art education serves as preparation for the teaching of art in grades kindergarten

through 12. In addition to courses leading to teacher certification, the program includes extensive study in studio art and art history.

Application for admission to teacher education should be made during the third quarter of the freshman year; completion of 45 quarter hours of study including PSY 101 and a 2.0 accumulative average are required.

To become an art education major, a student must submit a portfolio of studio work for review at the end of the sophomore year; portfolio reviews are held the first week of May.

Student teaching is normally assigned during one of the quarters of the senior year. Applications for student teaching are to be made to the office of the director of student teaching no later than December 1 preceding the academic year in which the student teaching assignment is desired; a 2.25 or better accumulative average is required.

Requirements for a major in art education include the following: ART 461 (Art Experiences in Elementary School); ART 462 (Teaching in the Secondary School); 76 quarter hours of studio art including at least one course each in two-dimensional art, three-dimensional art, and graphic design; 24 quarter hours of art history; and courses required for teacher certification. To achieve proficiency in studio skills, students must complete a 36-hour, two-area concentration in studio.

### Suggested Sequence of Study

Freshman	
ART 101, Two-Dimensional Design	4
ART 102, Three-Dimensional Design	4
ART 128, Introduction to Drawing	4
ART 100, Seeing and Knowing the Visual Arts	3
PSY 101, General Psychology	5
INCO 103, Public Speaking	4
Studio Art	12
English Composition (100 level)	5
Mathematics	4-5
Social Science	3-5
	<u>48-51</u>

Sophomore	
Studio Art	12
ART 254, Lettering	4
AH 211, 212, 213, History of Art	12
Science	5
Tier II	4-5
EDCI 275, Learning Processes in the Classroom or	
PSY 275, Educational Psychology	5
EDSE 250, Analysis of Teaching	4
EDSE 250L, Field Experience	2
EDSE 270, Studies of Learner	3
EDSE 270L, Field Experience	1
	<u>52-53</u>

Junior	
Studio Art	21-25
ART 461, Art Experience in the Elementary School	3
ART 462, Art Teaching in the Secondary School	3
Art History/Comparative Arts Elective	12
English Composition (300 level)	5
EDSE 351, Instructional Process and Curriculum	5
	<u>49-53</u>

Senior	
Studio Art	15
EDM 480A, Educational Media	2
EDCI 401, Urban Field Experience	2
EDSE 420, Teaching of Reading in Content Areas	4
EDSE 420L, Field Experience	1
EDCI 480, School and Society	3
EDPI 461, 463, 465, Student Teaching	16
	<u>43</u>

Total minimum hours required: 192

### Art History Major (Major Code #5123)

#### Suggested Sequence of Study

Freshman	
ART 100, Seeing and Knowing the Visual Arts	3
Studio Art (100 level)	12
English Composition (100 level)	5
Tier I	4-5
Tier II	3-7
Humanities (from Tier II list)	9
Electives	3-4
	<u>48-54</u>

Sophomore	
AH 211, 212, 213, History of Art	12
Studio Electives	12
Tier II	5
Electives	19-25
	<u>48-54</u>

Junior	
Art History	12
Studio Electives	12-15
English Composition (300 level)	5
Electives	20-27
	<u>49-59</u>

Senior	
Art History	20
Electives	28-34
	<u>48-54</u>

Total minimum hours required: 192

Electives should include 35 quarter hours of nonart courses; attainment of a reading knowledge of at least one foreign language should be considered important; students are expected to arrange programs with advisors, and selection of elective courses, in particular, should be made after consultation with an advisor.

### Art Therapy Major (Major Code #5144)

The B.F.A. degree program in art therapy partially fulfills the requirements of registration with the American Art Therapy Association; clinical work under a qualified art therapist must be completed for registration to be granted. Art therapists work with patients in mental health centers and clinics, in juvenile delinquency centers, community action agencies, institutions for the aged, and in other areas.

The program includes an art therapy internship and students are encouraged to do some volunteer work during the degree program.

#### Suggested Sequence of Study

Freshman	
ART 100, Seeing and Knowing the Visual Arts	3
ART 101, Two-Dimensional Design	4
ART 102, Three-Dimensional Design	4
ART 128, Introduction to Drawing	4
ART 115, Introduction to Ceramics	4
PSY 101, General Psychology	5
SOC 101, Introduction to Sociology	5
BIOL 101, Principles of Biology	5
English Composition (100 level)	5
Tier I	4-5
Tier II	4
	<u>48-49</u>

Sophomore	
ART 105, Introduction to Painting	4
ART 191, Introduction to Photography	4
ART 141, Introduction to Printmaking	4

ART 271, Introduction to Art Therapy	5
AH 211, 212, 213, History of Art	12
PSY 121, Elementary Statistics for the Behavioral Sciences	5
PSY 173, Child and Adolescent Psychology	5
PSY 226, Experimental Psychology or	
PSY 241, Behavioral Measurement	5
ART 205, Basic Painting	4
	48

## Junior

Art History	4
ART 206, Intermediate Painting	4
ART 360, Art for Elementary Teachers	6
ART 232, Sculpture, Figure Modeling	4
Studio Electives	9
PSY 310, Motivation	5
PSY 332, Abnormal Psychology	5
PSY 333, Psychology of Personality	5
English Composition (300 level)	5
Directed Electives	5
ART 371, Art Therapy	5
	57

## Senior

ART 461, Art Experience in the Elementary School	3
ART 462, Art Teaching in the Secondary School	3
ART 471, Art Therapy Internship	15
Studio Elective	10
PSY 351, Introduction to Clinical and Counseling Psychology	5
EDSP 272, 373 or PSY 376, Psychological Disorders of Childhood	5
Directed Electives	14
	55

Total minimum hours required: 207

**Graphic Design Major (Major Code #6321)**

The B.F.A. degree program in graphic design is intended to prepare professionals in the field of graphic design. Many of our graduates acquire positions in advertising agencies; other possibilities include illustration, work in publishing houses and greeting card companies, exhibit design firms, related government jobs, packaging design, and museum design.

To become a graphic design major, a student must submit a portfolio of studio work for review at the end of the sophomore year. The professional program of study for the junior and senior years is determined through counseling. Senior major courses are individually oriented with provisions for independent study. The program concludes with the preparation of a portfolio and a senior design exhibition.

**Suggested Sequence of Study**

## Freshman

Studio Art (100 level)	12
ART 100, Seeing and Knowing the Visual Arts	3
English Composition (100 level)	5
Tier I	4-5
Tier II	7-11
Humanities (from Tier II list)	9
Electives	8-10
	48-54

## Sophomore

ART 251, Graphic Design: Typography	4
ART 253, Graphic Design: Illustration	4
ART 254, Graphic Design: Lettering	4
AH 211, 212, 213, History of Art	12
Studio Electives	12
Tier II	7-10
Electives	5-8
	48-54

## Junior

ART 351, Graphic Design: Typography	5
ART 353, Graphic Design: Illustration	5
ART 354, Graphic Design: Media	5
Studio Electives	12-15
Art History Elective (300 level)	8
English Composition (300 level)	5
Tier II	3-4
Electives	5-7
	48-54

## Senior

ART 451, 452, 453, Graphic Design: Senior Studio	15
ART 450, Design Practicum	3
Studio Electives	9-10
Electives	21-26
	48-54

Total minimum hours required: 192

**Ceramics (Major Code #5127), Painting (Major Code #5124), Printmaking (Major Code #5128) or Sculpture (Major Code #5126) Major****Suggested Sequence of Study**

## Freshman

Studio Art (100 level)	12
ART 100, Seeing and Knowing the Visual Arts	3
English Composition (100 level)	5
Tier I	4-5
Tier II	10-12
Humanities (from Tier II list)	9
Electives	5-8
	48-54

## Sophomore

Proposed Major	12
Studio Electives	12
AH 211, 212, 213, History of Art	12
Tier II	7-10
Electives	5-8
	48-54

## Junior

Studio Major	15
Studio Electives	12-15
Art History Elective (300 level)	8
English Composition (300 level)	5
Electives	8-11
	48-54

## Senior

Studio Major	15
Studio Electives	9-12
Major Practicum	3
Electives	21-24
	48-54

Total minimum hours required: 192

**Studio Arts Major (Major Code #5118)**

Students electing the studio arts major are to select a minimum of four courses in each of three studio areas which may include ceramics, fibers, graphic design, painting, photography, printmaking, or sculpture.

**Suggested Sequence of Study**

## Freshman

Studio Art (100 level)	12
ART 100, Seeing and Knowing the Visual Arts	3
English Composition (100 level)	5
Tier I	4-5
Tier II	8-11
Electives	7-9
Humanities (from Tier II list)	9
	48-54

## Sophomore

Studio Art	24
AH 211, 212, 213, History of Art	12
Tier II	9-12
Electives	3-6
	48-54

## Junior

Studio Art	27-29
Art History Elective (300 level)	8
English Composition (300 level)	5
Electives	8-12
	48-54

## Senior

Studio Art	15
Studio Electives	12
Electives	21-27
	48-54

Studio courses are to be distributed as follows:

a. 100 level courses	12
b. minimum of 4 courses in each of 3 areas (3 areas x 17 hours = 51 hours)	51
c. 300-400 level studio courses (in addition to hours required in b. above)	15
d. studio electives	12
	minimum 90

Total minimum hours required: 192

**Photography Major (Major Code #5143)**

Photography majors may concentrate in fine arts photography or in applied photography with emphasis on media and photojournalism.

**Suggested Sequence of Study**

## Freshman

ART 191, Introduction to Photography	4
ART 192, Basic Photography	4
ART 100, Seeing and Knowing the Visual Arts	3
ART 101, Two-Dimensional Design	4
ART 102, Three-Dimensional Design	4
English Composition (100 level)	5
Tier I	4-5
Tier II	8-10
Humanities (from Tier II list)	9
Electives	3-7
	48-55

## Sophomore

ART 295, 296, 297, Intermediate Photography	15
AH 211, 212, 213, History of Art	12
AH 237, 238, 239, History of Photography	9
Studio Elective	8-10
Tier II	4-8
	48-54

## Junior

ART 391, 392, 393, Photographic Arts or ART 397, 398, 399, Photographic Communication	15
Studio Electives	12-15
Art History Elective (300 level)	4
English Composition (300 level)	5
Tier II	5
Electives	7-10
	48-54

## Senior

Photography Major	15
Studio Electives	13-15
ART 490, Photography Practicum	3
Electives	17-21
	48-54

Total minimum hours required: 192

A portfolio review is required for entrance into ART 295, Intermediate Photography.

**SCHOOL OF DANCE**

Shirley Wimmer, *Director*

The School of Dance offers an undergraduate four-year major program leading to a bachelor of fine arts degree, which includes work in performance, choreography, the history and ethnology of dance, and the teaching of dance. There are opportunities for performances in our Putnam Studio Theater for both faculty and student choreographed works. Additional experience is gained from workshops and programs interrelated with the other schools in the College of Fine Arts. Visiting artists in residence during the academic year have choreographed works for student performances.

All new students intending to major in dance, both freshmen and transfer students, are required to audition as part of the admission process. An appointment for an audition and information on proficiency requirements may be obtained by contacting the director of the School of Dance. Auditions which start in November should be scheduled well in advance.

There is a growing demand for qualified graduates of dance major curricula to teach at all educational levels. Within the school, majors are encouraged to gain practical teaching experience by assisting in class instruction. The curriculum provides a foundation upon which the student may build a career as a performer, choreographer, scholar, or teacher; it also prepares him or her for advanced professional studies.

**Major in Dance**

## Freshman

DANC 101-102-103	21
DANC 111	2
DANC 170	4
English	15
Electives*	6-18

## Sophomore

DANC 201-202-203	21
DANC 212	3
DANC 441	3
ZOOL 301	6
Electives*	13-25

## Junior

DANC 301-302-303	21
DANC 351, 352 or 353	4
DANC 440	2
DANC 443	2
Theater Arts (Acting)	3
Electives*	16-28

## Senior

DANC 401-402-403	21
DANC 471, 472, 473	4
DANC 480	2
Electives*	13-25

\*Electives will include courses in the following fields: anthropology, history, language other than English, philosophy, psychology, studio art, art history, comparative arts, film, music performance, music history, theater history.



## SCHOOL OF MUSIC

Gerald Lloyd, *Director*

The curricula of the School of Music, culminating in the degree bachelor of music, are designed to prepare students for careers in teaching, music therapy, or performance. The School of Music makes provision for individual study in all branches of vocal and instrumental music and offers a wide range of courses in the fields of theory or composition, music history and literature, music education, and music therapy. Opportunities are provided for individual participation in student recitals as well as for performing experience in the various organizations, such as the Choral Union, the University orchestras, the bands, Opera Workshop, and Jazz Ensemble, as well as many small chamber ensembles.

Students who specialize in music education may elect either instrumental or vocal emphases. Upon completion of the requirements of the music education program, which includes the requirements of the State Board of Education, the student receives the Ohio Special Certificate for teaching music.

Students in the College of Arts and Sciences may major in one of two areas — music history and literature or music theory. The associate director of the School of Music should be consulted as the curriculum advisor.

All new students intending to major in music, both freshmen and transfer students, must audition on their principal instruments or voice as part of the admission process. An appointment for an audition and information concerning proficiency requirements may be secured by contacting the director of the School of Music. Those students who are accepted but do not meet the required level of proficiency in their principal instruments may be placed in small classes with students of comparable ability until the required level of proficiency is reached.

A music theory placement examination is required of all new students. This examination is given on freshman entrance audition days and on registration day at the beginning of each quarter. Specific times and locations for this examination may be obtained from the School of Music office.

The Ohio University School of Music is a member of the National Association of Schools of Music. The requirements for entrance and for graduation as set forth in this *Ohio University Bulletin* are in accordance with the standards set up by the association.

The School of Music provides a Preparatory Division for precollege-age students, University students who are not music majors, and other adults. Private instruction is offered in all instruments and voice. Teachers in the Preparatory Division are either regular faculty members, graduate students, or advanced undergraduate students. Full details are available from the director of the Preparatory Division.

Each music major is required to enroll in Performance Laboratory (MUS 90) as well as elect an appropriate performing group consistent with his or her major (see *School of Music Handbook*) during each quarter of residency at the University.

The following course plans outline a practical sequence of required courses which should be of assistance to the student in planning his or her course of study. All students must complete Tier I and Tier II of the General Education Requirement (See *Graduation Requirements*.)

## Major in Piano

Freshman		
English.....5	PHIL 120.....4	INCO 101.....3
MUS 125.....3	MUS 102.....4	Elect.....5
MUS 101.....4	MUS 341.....4	MUS 103.....4
MUS 341.....4	Elect.....4	MUS 341.....4
Perf Group.....1	Perf Group.....1	Perf Group.....1
MUS 90.....0	MUS 90.....0	MUS 90.....0

Sophomore		
MUS 201.....3	MUS 202.....3	MUS 203.....3
MUS 204.....3	MUS 205.....3	MUS 206.....3
MUS 321.....3	MUS 322.....3	MUS 323.....3
MUS 341.....5	MUS 341.....5	MUS 341.....5
Perf Group.....1	Perf Group.....1	Perf Group.....1
MUS 90.....0	MUS 90.....0	MUS 90.....0

Junior		
MUS 451.....1	MUS 451.....1	MUS 451.....1
MUS 341.....5	Theory Elect.....2-3	Theory Elect.....2-3
For Lang*.....4	MUS 341.....5	MUS 341.....5
English.....5	For Lang*.....4	For Lang*.....4
Perf Group.....1	MUS 421C**.....3	MUS 497.....0
MUS 90.....0	Perf Group.....1	Elect.....3
	MUS 90.....0	Perf Group.....1
		MUS 90.....0

Senior		
Tier II Elect.....4-5	Tier II Elect.....4-5	Tier II Elect.....4-5
MUS 452.....2	MUS 453.....2	MUS 454.....2
MUS 341.....6	MUS 341.....6	MUS 341.....6
Elect.....3	MUS 421B**.....3	Elect.....3
Perf Group.....1	Perf Group.....1	MUS 497.....0
MUS 90.....0	MUS 90.....0	MUS 90.....0
		Perf Group.....1

\*One year of French, German, or Italian

\*\*May be taken in the junior or senior year

Tier I Course: PHIL 120

Tier II Courses (minimum 30 hours): MUS 341-6; For Lang-12;

Tier II Elects-12-15

## Major in Voice

Freshman		
ITAL 111.....4	ITAL 112.....4	ITAL 113.....4
MUS 125.....3	Eng Comp.....5	PHIL 120.....4
MUS 101.....4	MUS 102.....4	MUS 103.....4
MUS 340.....4	MUS 340.....4	MUS 340.....4
MUS 341 or 141.2	MUS 341 or 142.2	MUS 341 or 143.2
Perf group.....1	Perf group.....1	Perf group.....1
MUS 90.....0	MUS 90.....0	MUS 90.....0

Sophomore		
MUS 201.....3	MUS 202.....3	MUS 203.....3
MUS 204.....3	MUS 205.....3	MUS 206.....3
MUS 340.....4	MUS 340.....4	MUS 340.....4
MUS 341 or 241.2	MUS 341 or 242.2	MUS 341 or 243.2
Perf group.....1-2	Perf group.....1-2	Perf group.....1-2
MUS 90.....0	MUS 90.....0	MUS 90.....0
GER 111.....4	GER 112.....4	Tier II Elect.....4

Junior		
MUS 321.....3	MUS 322.....3	MUS 323.....3
FR 111.....4	FR 112.....4	Tier II Elect.....4
Tier II Elect.....4	MUS Theory/Lit.....3	Eng Comp.....5
MUS 340.....4	Elect.....3	MUS 340.....4
Perf group.....1-4	MUS 340.....4	Perf group.....1-3
MUS 90.....0	Perf group.....1-4	MUS 90.....0
	MUS 90.....0	Recital.....0
		MUS 458D.....1

Senior		
MUS 421A .....3	MUS 459D .....2	Elective .....6
MUS 340 .....4	MUS 340 .....4	MUS 340 .....4
MUS Theory/Lit	MUS Elect .....3	MUS Elect .....3
Elect .....3	Perf group .....1-4	Perf group .....1-4
Perf group .....1-4	MUS 90 .....0	MUS 90 .....0
MUS 90 .....0	MUS 456 .....3	Recital .....0
Elect .....3	MUS 421F .....3	MUS Theory/Lit
MUS 455 .....3		Elect .....2-3

Demonstration of piano proficiency is required.

### Major in Organ

Freshman		
MUS 125 .....3	English .....5	Tier I Elect ....4-5
CA 117 .....3	CA 118 .....3	CA 119 .....3
MUS 101 .....4	MUS 102 .....4	MUS 103 .....3
MUS 343 .....4	MUS 343 .....4	MUS 343 .....4
Perf Group .....1	Perf Group .....1	Perf Group .....1
MUS 90 .....0	MUS 90 .....0	MUS 90 .....0
INCO 101 .....3		

Sophomore		
MUS 201 .....3	MUS 202 .....3	MUS 203 .....3
MUS 204 .....3	MUS 205 .....3	MUS 206 .....3
MUS 321 .....3	MUS 322 .....3	MUS 323 .....3
MUS 147 .....2	MUS 148 .....2	MUS 149 .....2
MUS 343 .....4	MUS 343 .....4	MUS 343 .....4
Perf Group .....1	Perf Group .....1	Perf Group .....1
MUS 90 .....0	MUS 90 .....0	MUS 90 .....0

Junior		
Tier II Elect ....4	Tier II Elect ....2	Tier II Elect ....6
MUS 402 or 407 .3	English .....5	MUS 404 or 409 .3
MUS 455 .....3	MUS 403 or 408 .3	MUS 457 .....3
MUS 401 .....3	MUS 456 .....3	MUS 343 .....4
MUS 343 .....4	MUS 343 .....4	Perf Group .....1
Perf Group .....1	Perf Group .....1	MUS 90 .....0
MUS 90 .....0	MUS 90 .....0	MUS 497 .....0

Senior		
Tier II Elect ....6	Tier II Elect ....6	Tier II Elect ....6
MUS 421A or D .3	MUS 421E .....3	MUS 421C or F .3
MUS 343 .....6	MUS 343 .....6	MUS 343 .....6
Perf Group .....1	Perf Group .....1	Perf Group .....1
MUS 90 .....0	MUS 90 .....0	MUS 90 .....0
		MUS 497 .....0

Minimum credit hours required for graduation: 200

### Major in Orchestral Instruments

Strings, Woodwinds, Brass or Percussion

Freshman		
MUS 125 .....3	English .....5	Tier I Elect
MUS 101 .....4	MUS 102 .....4	(PHIL 120) .4-5
Major Instr .....4	Major Instr .....4	MUS 103 .....4
MUS 341 or 141 .2	MUS 341 or 142 .2	Major Instr .....4
Band/Orch .....2	Band/Orch .....2	MUS 341 or 143 .2
MUS 90 .....0	MUS 90 .....0	Band/Orch .....2
Chamber Music* .1	Chamber Music .1	MUS 90 .....0
		Chamber Music .1

Sophomore		
MUS 201 .....4	MUS 202 .....4	MUS 203 .....4
MUS 204 .....2	MUS 205 .....2	MUS 206 .....2
MUS 321 .....3	MUS 322 .....3	MUS 323 .....3
Major Instr .....4	Major Instr .....4	Major Instr .....4
MUS 341 or 241 .2	MUS 341 or 242 .2	MUS 341 or 243 .2
Band/Orch .....2	Band/Orch .....2	Band/Orch .....2
MUS 90 .....0	MUS 90 .....0	MUS 90 .....0
Chamber Music .1	Chamber Music .1	Chamber Music .1

Junior		
English .....5	Tier II Elect ....4	Tier II Elect ....4
MUS 455 .....3	MUS 457 .....3	Tier II Elect ....4
Mus Th/Lit Elect .3	Mus Th/Lit Elect .3	Mus Th/Lit Elect .3
Major Instr .....4	Major Instr .....4	Major Instr .....4
Band/Orch .....2	Band/Orch .....2	Band/Orch .....2

MUS 90 .....0	MUS 90 .....0	MUS 90 .....0
Chamber Music .1	Chamber Music .1	Chamber Music .1
		MUS 497 .....0

Senior		
Humanities Elect	Humanities Elect	Humanities Elect
(Tier II) .....4	(Tier II) .....4	(Tier II) .....4
Major Instr .....6	MUS 458 .....1	Major Instr .....6
Band/Orch .....2	Major Instr .....6	MUS 459 .....2
MUS 90 .....0	Elective .....3	Band/Orch .....2
Chamber Music .1	Band/Orch .....2	MUS 90 .....0
MUS 304 .....3	MUS 90 .....0	Chamber Music .1
	Chamber music .1	MUS 497 .....0

\*12 quarters chamber music required for string majors; 9 quarters for other instrumentalists.

### Major in Theory or Composition

Freshman		
MUS 101 .....4	MUS 102 .....4	MUS 103 .....4
MUS 125 .....3	English .....5	Elective .....3-5
Prin Instr .....2	Prin Instr .....2	Prin Instr .....2
Class Piano <sup>1</sup> .....2	Class Piano <sup>1</sup> .....2	Class Piano <sup>1</sup> .....2
Perf Group .....1	Perf Group .....1	Perf Group .....1
Tier I Elect ....4-5	Elect .....3-5	INCO 101 .....3
MUS 90 .....0	MUS 90 .....0	MUS 90 .....0

Sophomore		
MUS 201 .....4	MUS 202 .....4	MUS 203 .....4
MUS 204 .....2	MUS 205 .....2	MUS 206 .....2
Prin Instr .....2	Prin Instr .....2	Prin Instr .....2
Class Piano <sup>1</sup> .....2	Class Piano <sup>1</sup> .....2	Class Piano <sup>1</sup> .....2
Perf Group .....1	Perf Group .....1	Perf Group .....1
Tier II Elect ....5	Tier II Elect ....5	Tier II Elect ....5
MUS 90 .....0	MUS 90 .....0	MUS 90 .....0

Junior		
MUS 321 .....3	MUS 322 .....3	MUS 323 .....3
MUS 407 <sup>2</sup> .....3	MUS 408 <sup>2</sup> .....3	MUS 409 <sup>2</sup> .....3
MUS 310 .....2	MUS 311 .....2	MUS 312 .....2
Prin Instr .....2	Prin Instr .....2	Prin Instr .....2
English .....5	Tier II Elect ....5	Tier II Elect ....5
Perf group .....1	Perf group .....1	Perf group .....1
MUS 90 .....0	MUS 90 .....0	MUS 90 .....0
		MUS 413 .....2

Senior		
MUS 421 .....3	MUS 421 .....3	MUS 421 .....3
MUS 304 .....3	MUS 305 .....3	MUS 306 .....3
MUS 402 <sup>2</sup> .....3	MUS 403 <sup>2</sup> .....3	MUS 404 <sup>2</sup> .....3
MUS 410 <sup>4</sup> .....2	MUS 411 <sup>4</sup> .....2	MUS 412 <sup>4</sup> .....2
MUS 414 <sup>3</sup> .....2	MUS 498 <sup>3</sup> .....2	MUS 498 <sup>3</sup> .....2
Perf group .....1	Perf group .....1	Perf group .....1
Elect .....3-5	Elect .....3-5	Elect .....3-5
MUS 90 .....0	MUS 90 .....0	MUS 90 .....0

<sup>1</sup>If piano is the principal instrument, the secondary instrumental requirement may be satisfied by one of the following methods:

- by taking applied lessons on an instrument other than piano for 6 quarters (1 hour per quarter)
- by taking 3 quarters (2 hours per quarter) of either String Methods and Materials 261, or Wind & Percussion Methods & Materials 263, or a combination of both.

<sup>2</sup>May be taken in junior or senior year

<sup>3</sup>Required of theory majors

<sup>4</sup>Required of composition majors

Minimum credit hours required for graduation: 195

### Major in Music History and Literature

Freshman		
MUS 125 .....3	English .....5	Tier I Elect ....4-5
English .....5	Tier I Elect ....3-5	INCO .....3
MUS 101 .....4	MUS 102 .....4	MUS 103 .....4
Appl Prin .....2	Appl Prin .....2	Appl Prin .....2
Appl Sec .....1	Appl Sec .....1	Appl Sec .....1
Perf Ensemble ....1	Perf Ensemble ....1	Perf Ensemble ....1
MUS 90 .....0	MUS 90 .....0	MUS 90 .....0

## Sophomore

MUS 201.....3	MUS 202.....3	MUS 203.....3
MUS 204.....3	MUS 205.....3	MUS 206.....3
MUS 321.....3	MUS 322.....3	MUS 323.....3
Tier II Elect.....4	Tier II Elect.....4	Tier II Elect.....4
Appl Prin.....2	Appl Prin.....2	Appl Prin.....2
Appl Sec.....1	Appl Sec.....1	Appl Sec.....1
Perf Ensemble.....1	Perf Ensemble.....1	Perf Ensemble.....1
MUS 90.....0	MUS 90.....0	MUS 90.....0

## Junior

Theory Elect.....3	Theory Elect.....3	Theory Elect.....3
Mod Lang.....5	Mod Lang.....5	Mod Lang.....5
MUS 421.....3	MUS 421.....3	MUS 421.....3
Appl Prin.....2	Appl Prin.....2	Appl Prin.....2
English.....5	Hist Elect.....4	Hist Elect.....4
Perf Ensemble.....1	Perf Ensemble.....1	Perf Ensemble.....1
MUS 90.....0	MUS 90.....0	MUS 90.....0

## Senior

MUS 421.....3	MUS 421.....3	MUS 421.....3
CA.....3	CA.....3	CA.....3
Mod Lang.....5	Mod Lang.....5	Mod Lang.....5
Appl Prin.....2	Appl Prin.....2	Appl Prin.....2
Elect.....4	Elect.....4	Elect.....4

## Major in Music Education

## Instrumental Emphasis

## Freshman

MUS 101.....4	MUS 102.....4	MUS 103.....4
App-Prin.....2	App-Prin.....2	App-Prin.....2
App-Sec.....1-2	App-Sec.....1-2	App-Sec.....1-2
Perf group.....1-2	Perf group.....1-2	Perf group.....1-2
MUS 90.....0	MUS 90.....0	MUS 90.....0
PSY 101.....5	Eng.....5	INCO 103.....4
Science.....4-5	Math.....4-5	Soc Sci.....4-5

## Sophomore

MUS 147.....2	MUS 148.....2	MUS 149.....2
MUS 201.....3	MUS 202.....3	MUS 203.....3
MUS 204.....3	MUS 205.....3	MUS 206.....3
App-Prin.....2	App-Prin.....2	App-Prin.....2
App-Sec.....1-2	App-Sec.....1-2	App-Sec.....1-2
Perf group.....1-2	Perf group.....1-2	Perf group.....1-2
MUS 90.....0	MUS 90.....0	MUS 90.....0
EDCI 275/ PSY 275.....5	EDSE 250.....4	MUS 263.....2

## Junior

MUS 261.....2	MUS 261.....2	MUS 261.....2
MUS 263.....2	MUS 263.....2	MUS 263.....2
MUS 321.....3	MUS 322.....3	MUS 323.....3
MUS 455.....3	MUS 457.....3	App-Prin.....2
App-Prin.....2	Perf group.....1-2	MUS 90.....0
Perf group.....1-2	MUS 90.....0	Perf group.....1-2
MUS 90.....0	App-Prin.....2	Eng.....5
EDPL 360.....2	EDSE 351.....5	

## Senior

MUS 263.....2	MUS 263.....2	EDPL 461.....6
MUS 363.....3	App-Prin.....2	EDPL 463.....6
MUS 304.....3	Perf group.....1-2	EDPL 465.....3
MUS 469.....4	EDSE 480.....3	
App-Prin.....2	Elect.....8-10	
Perf group.....1-2	MUS 90.....0	
MUS 90.....0		

Minimum credit hours required for graduation 204.

Demonstration of piano proficiency is required. See the School of Music Handbook for a complete statement concerning requirements.

Ohio certification requires particular *minimums* in certain areas of general education. Though these *minimums* are included in the suggested plan, other requirements in general education are not included here. It will be necessary to consult a music education counselor at least once a year in order to assure completion of all certification requirements.

The above course plan is only a suggested sequence of study. It does not constitute a contract.

## Vocal Emphasis

## Freshman

MUS 101.....4	MUS 102.....4	MUS 103.....4
App-Prin.....2	App-Prin.....2	App-Prin.....2
App-Sec.....1-2	App-Sec.....1-2	App-Sec.....1-2
Perf group.....1-2	Perf group.....1-2	Perf group.....1-2
MUS 90.....0	MUS 90.....0	MUS 90.....0
PSY 101.....5	Eng.....5	INCO 103.....4
Science.....4-5	Math.....4-5	Soc Sci.....4-5

## Sophomore

MUS 201.....3	MUS 202.....3	MUS 203.....3
MUS 204.....3	MUS 205.....3	MUS 206.....3
App-Prin.....2	App-Prin.....2	App-Prin.....2
App-Sec.....1-2	App-Sec.....1-2	App-Sec.....1-2
Perf group.....1-2	Perf group.....1-2	Perf group.....1-2
MUS 90.....0	MUS 90.....0	MUS 90.....0
EDCI 275/ PSY 275.....5	EDSE 250.....4	Elect.....4-5
MUS 263.....2	MUS 263.....2	MUS 263.....2

## Junior

MUS 321.....3	MUS 322.....3	MUS 323.....3
MUS 455.....3	MUS 364.....3	MUS 365.....3
EDPL 360.....2	MUS 366.....3	MUS 367.....3
App-Prin.....2	MUS 456.....3	App-Prin.....2
App-Sec.....1-2	App-Prin.....2	App-Sec.....1-2
Perf group.....1-2	App-Sec.....1-2	Perf group.....1-2
MUS 90.....0	Perf group.....1-2	MUS 90.....0
EDSE 351.....5	MUS 90.....0	Eng.....5

## Senior

MUS 261.....2	MUS 261.....2	EDPL 461.....6
MUS 304.....3	EDSE 480.....3	EDPL 463.....6
MUS 468.....3	App-Prin.....2	EDPL 465.....3
App-Prin.....2	Perf group.....1-2	
Perf group.....1-2	Elect.....8-9	
Elect.....3-4	MUS 90.....0	
MUS 90.....0		

Minimum credit hours required for graduation: 201.

Keyboard principals in this program are required to take 1-3 hours of MUS 451 Accompanying during their junior or senior year. Demonstration of piano proficiency is required for both keyboard principals and vocal principals in the above program. See the School of Music Handbook for a complete statement concerning requirements.

Ohio certification requires particular *minimums* in certain areas of general education. Though these *minimums* are included in the suggested plan, other requirements in general education are not included here. It will be necessary to consult a music education counselor at least once each year to assure completion of all certification requirements.

The above course plan is only a suggested sequence of study. It does not constitute a contract.

## Major in Music Therapy

## Freshman

Intro to Mus.....3	PSY 101.....5	PSY 121.....5
Lit-125.....3	Mus Theory-102.....4	Mus Theory-103.....4
Mus Theory-101.....4	Prin Instr.....2	Prin Instr.....2
Prin Instr.....2	Class Piano-142*.....2	Class Piano-143*.....2
Class Piano-141*.....2	Perf Group.....1	Perf Group.....1
Perf Group.....1	EDSP 271.....3	Intro to Mus.....3
English Comp.....5	MUS 90.....0	Therapy.....3
MUS 90.....0		MUS 90.....0

## Sophomore

Harmony-201.....4	Harmony-202.....4	Harmony 203.....4
Dict & S.S.-204.....2	Dict & S.S.-205.....2	Spec Ed Elect.....3
Prin Instr.....2	Prin Instr.....2	Prin Instr.....2
Class Voice.....147**.....2	Class Voice.....148**.....2	Class Voice.....149**.....2
Class Piano-241*.....2	Class Piano-242*.....2	Class Piano-243*.....2
MT Pract Ia 280.....1	MT Pract Ib 280.....1	MT Pract Ic 280.....1
Obs, Eval, Res in.....3	MT Meth & Media.....3	Rec Mus &.....3
MT 281.....3	MT 282.....3	Materials 283.....3
Perf Group.....1	Perf Group.....1	Perf Group.....1
MUS 90.....0	MUS 90.....0	MUS 90.....0

Junior		
Mus History-321 .3	Mus History-322 .3	Mus History-323 .3
Conducting-455 .3	El Mus Ed-366 .3	El Mus Ed-367 .3
Abnorm Psy-332 .5	Woodwinds-263 .2	Eng Comp-Tech
Class Piano-359/	Class Piano-360/	Writ . . . . .5
372 . . . . .2	373 . . . . .2	Class Piano-361/
MT Pract 2a-380 .1	MT Pract 2b-380 .1	374 . . . . .2
Back in MT-381 .3	MT w/Except	MT Pract 2c-380 .1
MUS 90 . . . . .0	Child-382 . . . .3	MT in Psy &
	MUS 90 . . . . .0	Rehab-383 . . . .3
	Intro Sp Disor-	MUS 90 . . . . .0
	HSS 108 . . . . .3	
Senior		
ZOOL-101 . . . . .5	Psy of Mus-482 .3	Percussion-263 .2
Dance Elect . . . .3	General Elect . . .5	General Elect . . .5
MT Pract 3a-480 .1	MT Pract 3b-480 .1	MT Pract 3c-480 .1
Pro Dev & Adm	ZOOL-301 . . . .6	ANTH-270 . . . .5
in MT-481 . . . .3	Brass-263 . . . .2	Clin Train in
Sociology-101 . .5	MUS 90 . . . . .0	MT-489 . . . . .4
MUS 90 . . . . .0		MUS 90 . . . . .0
		Strings-261 . . . .2

\*Nonpiano principals only

\*\*Nonvocal principals only

Minimum credit hours required for graduation: 207

The music therapy curriculum is designed to meet the degree requirements of the School of Music and the National Association for Music Therapy.

In addition to the regular coursework, the student must complete the required course MUS 489, Clinical Experience (six-month internship) at an approved clinical training facility for the training of music therapists before graduation. Upon graduation, the student is eligible for listing with NAMT as a registered music therapist (RMT).

## SCHOOL OF THEATER

Robert L. Winters, *Director*

Experience dictates that the best theater professional is an individual with a thorough knowledge of an area of specialization supported by a broad range of esthetic and humanistic understanding usually acquired through academic studies. Accepting the thesis that theater is ultimately an examination of the questions and answers of life, it follows that training in theater must include a study of the human condition as a prelude to specialization. Through careful individualized curriculum planning, course structuring, advising, and production activities, the School of Theater helps the theater major develop a theoretical and practical foundation for specialization and entry to the profession.

The staff in the School of Theater feels that advising is a critical aspect of early training. Upon entering the School of Theater, the major is assigned an academic advisor who is responsible for aiding in the arrangement and selection of courses leading toward a curricular plan that serves the student's individual goals. The staff also recognizes that advising serves both a formal and an informal purpose and encourages majors to share their interests with faculty other than their immediate advisors and in particular the faculty most in line with their specific training goals.

All new students intending to major in theater are encouraged to attend an audition-interview session prior to enrollment. This is traditionally conducted in February. Any student wishing to apply for freshman undergraduate scholarships at the time of entrance must appear for the February session. For more information write the Office of the Director, School of Theater.

Excellence in scholarship and performance is recognized by a number of annual awards, such as the Irma E. Voigt Memorial Award of Sigma Kappa to a senior woman for outstanding achievement in theater.

The School of Theater produces a minimum of six major productions during the regular school year and offers summer stock experience through the Ohio Valley Summer Theater in Athens and the Monomoy Theater in Chatham, Massachusetts on Cape Cod. Production activities in the School of Theater are considered part of the total curriculum planning of a major since production is, of course, ultimately the main purpose of theater training. Majors register each quarter for a production assignment, which is referred to as practicum. Students in the first year of training participate in productions through technical and management assignments while second-, third-, and fourth-year students participate in productions as performers, advanced technicians, and managerial assistants.

The curriculum is designed to fulfill the general education and theater requirements of the student while allowing flexibility for individual interests and specialization. A student's program is built around a basic core of courses that gives the student a theoretical understanding of each area of theater. After the core courses, the student selects a program or programs that suit his or her particular needs and interests. Throughout the program the student will be closely observed and counseled by the faculty and his or her progress will be reviewed at periodic intervals. At the end of any quarter, he or she may be recommended for transfer to another sequence or degree within the school, required to modify his or her program, or denied further enrollment as a degree candidate in the School of Theater. Through careful advising and intelligent use of all elective and general education course options, the students may broaden their education and explore other areas of interest. Students interested in an honors program in theater should apply to the Honors Tutorial College.

## BASIC FOUR-YEAR BACHELOR OF FINE ARTS CURRICULUM

### I. General Education

General Education requirements in the School of Theater will follow the guidelines established by the University relative to Tiers I and II. Further, the School of Theater Curriculum Committee and advisors will require additional courses that support the individual student's curricular needs. The total number of credits to satisfy the School of Theater and the University's General Education requirements will be 47-53 credits.

Total 47-53 credits

### II. Required Theater Credits

Freshman	
THAR 101, 102, 103 Orientation to the Theater as a Profession . . . . .	3
THAR 110 Intro. to Performance . . . . .	4
THAR 130, 131, 132 Tech. Prod.: Scenery, Lighting, Costume . . . . .	9
THAR 170 The Theater Experience . . . . .	4
THAR 171 Intro. to Play Analysis . . . . .	3
Practica . . . . .	6
Total Credits	29

Sophomore	
THAR 270, 271, 272 Theater Hist.	9
THAR 210, 211 Acting	8
THAR 237 Makeup	1
Practica	6
Total Credits	24

Junior and Senior	
THAR 320, 420 Directing	8
THAR 470 Series Theater Hist	12
Practica	12
Total Credits	32

Total Required Theater Credits 85

### III. Theater Electives

To be selected from theater arts courses 212 through 466, no practicum or independent studies are permitted in this elective series 28

### IV. Free Electives

To be selected by the student. No more than 12 additional credits in theater practicum and eight additional credits in theater independent studies will be applied toward the degree 26-32

Total Credits 192

## AREAS OF SPECIALIZATION

The theater major's interest in an area of specialization is served through the choices made from a variety of theater electives. Specialized programs might be devised in acting, directing, playwriting, theater history, dramatic literature, production design including set or costume design and technical production, theater management, or any combination the student may develop with his or her advisor. This professionally oriented course of study leads in the School of Theater to the bachelor of fine arts degree.

The following four-year schedules are examples of how a theater major may combine theater electives with theater requirements in developing an emphasis in acting or production design. Similar scheduling selections may be constructed with an advisor to emphasize playwriting, directing, or management.

### Acting

Freshman			
THAR 101	1	THAR 102	1
THAR 110	4	THAR 170	4
THAR 130	3	THAR 131	3
Practicum	2	Practicum	2
Gen Ed	5	Gen Ed	6

Sophomore			
THAR 270	3	THAR 271	3
THAR 210	4	THAR 211	4
THAR 216A	2	THAR 216B	2
THAR 217A	2	THAR 217B	2
THAR 237	1	Practicum	2
Practicum	2	Gen Ed	5
Gen Ed	4	Gen Ed	4

Junior			
THAR 316A	2	THAR 316B	2
THAR 317A	2	THAR 317B	2
THAR 316	4	THAR 311	4
THAR 470 series	4	THAR 420	4
Practicum	2	Practicum	2
Gen Ed	4	Gen Ed	4

Senior			
THAR 410	3	THAR 419	3
THAR 420	4	THAR 416	2
Practicum	2	Practicum	2
THAR 470 series	4	Free elect	6
		Practicum	2

## Production Design

Freshman			
THAR 101	1	THAR 102	1
THAR 170	4	THAR 110	4
THAR 130	3	THAR 131	3
Practicum	2	Practicum	2
Gen Ed	7	Gen Ed	5

Sophomore			
THAR 270	3	THAR 271	3
THAR 210	4	THAR 211	4
THAR 230	3	THAR 231	3
Practicum	2	THAR 237	1
Gen Ed	6	Practicum	2
		Gen Ed	5

Junior			
THAR 320	4	THAR 470	
THAR 333	3	series	4
Practicum	2	THAR 334	4
Gen Ed	5	THAR 420	4
		Practicum	2
		Gen Ed	4

Senior			
THAR 430	4	THAR 470	
THAR 438	4	series	4
Practicum	2	THAR 436	4
Free elect	4	THAR 432	4
		Practicum	2

## INSTITUTE OF VISUAL COMMUNICATION

Charles L. Scott, *Director*  
Terrill E. Eiler, *Associate Director*

The School of Art in cooperation with the School of Journalism offers a visual communication degree program with sequences in picture editing, photo communication, photo illustration, multi-media, educational media, performing arts communication, medical or science illustration, and electronic visual communication. Students can either earn a bachelor of science in journalism or a bachelor of fine arts degree in visual communication.

The program is designed to provide students with a realistic and thorough broad-based professionally oriented training, while providing the necessary liberal arts and cultural background as a strong foundation.

The goals of the Institute of Visual Communication are (1) to equip students with the necessary skills to be successful in entry-level jobs in the media and the background and motivation to enable them to compete for eventual leadership roles in the field, (2) to provide assistance and professional guidance in visual communications to working photographers, editors and other personnel, newspapers, press services, magazines, broadcast news operations, industrial photographic departments, advertising and public relations departments and firms, trade associations, multi media and educational media production units, and cultural and scientific visual communication units, (3) to set high standards for visual integrity and communication ethics, (4) to foster and promote scholarly research.

Freshman		
*ART 100 . . . . . 3	*ART 101 . . . . . 3	*ART 151 . . . . . 4
ART 191 . . . . . 4	ART 192 . . . . . 4	English . . . . . 5
*VICO 120 . . . . . 4	*VICO 121 . . . . . 4	*VICO 122 . . . . . 4
English . . . . . 5	Humanities . . . . . 5	ART 295 . . . . . 5
Sophomore		
AH 211 . . . . . 3	AH 212 . . . . . 3	AH 213 . . . . . 3
*AH 237 . . . . . 3	AH 238 . . . . . 3	AH 239 . . . . . 3
ART 296 . . . . . 5	ART 297 . . . . . 5	*ART 397 . . . . . 5
*JOUR 221 . . . . . 5	*JOUR 231 . . . . . 4	Humanities . . . . . 4
Junior		
Studio elect . . . . . 5	Studio elect . . . . . 5	Studio elect . . . . . 5
Photo major . . . . . 5	*JOUR 335 . . . . . 3	Photo major . . . . . 5

Electives . . . . . 6	AH 300 level . . . . . 4	English, junior . . . . . 5
	Electives . . . . . 4	
Senior		
Studio elect . . . . . 5	Studio elect . . . . . 5	Studio elect . . . . . 5
Photo major . . . . . 5	Photo major . . . . . 5	Photo major . . . . . 5
Electives . . . . . 6	*JOUR 411 . . . . . 4	Practicum . . . . . 3
	Elective . . . . . 3	Elective . . . . . 4

\*Visual communication core requirements

Electives should be chosen to fulfill needs of the area of emphasis (photo editing, photo communication, photo illustration, multi-media, educational media, performing arts communication, medical or science illustration, electronic visual communication).

## College of Health and Human Services

Hilda Richards, *Dean*

David Jacoby, *Assistant Dean for Student Services*

Sandra Mitchell, *Assistant to the Dean*

The College of Health and Human Services was established as Ohio University's ninth degree-granting college at the Board of Trustees' meeting on January 27, 1979. The college became operational July 1, 1979, and comprises the following areas: the School of Hearing and Speech Sciences; the School of Health, Physical Education and Recreation; the School of Home Economics; the School of Nursing; the Child Development Center; the Center for Human Development; and the Institute for Health and Human Services.

The mission of the new College of Health and Human Services is to promote an environment within which students may pursue undergraduate and graduate degrees in health and human services fields. Programs within the college combine academic coursework with practical field and clinical experiences providing students with basic knowledge, intellectual skills, and professional capabilities which enable the graduate to think and act positively and creatively in the face of ever-changing societal and human conditions.

The purposes of the College of Health and Human Services are:

- 1 To offer interdisciplinary programs designed for professionals with career objectives in the health and human services fields. The program will be oriented towards working with people with needs typically related to such areas as aging, day care, mental health, developmental disabilities, rehabilitation, nutrition, the family, environmental concerns, social welfare, justice, adolescence and youth, and the management of human and economic resources

- 2 To promote interdisciplinary research and development activities to expand the knowledge base in the health and human services fields and to disseminate information useful to theory and practice

- 3 To develop an effective outreach program which contributes to the continuing education of professionals and enhances the health care and human services provided to the people in the region and the State of Ohio

## DEGREES AND REQUIREMENTS

The College of Health and Human Services offers curricula leading to a bachelor of science in home economics, health, physical education, recreational studies, hearing and speech sciences, or nursing.

Graduate programs are available as follows:

*School of Health, Physical Education and Recreation*

Master in sports administration

Master of science in physical education

Master of science in exercise physiology

*School of Hearing and Speech Sciences*

Master of arts and Ph.D. in hearing and speech sciences

*School of Home Economics*

Master of science in home economics

All programs are described in detail in the *Ohio University Bulletin, Graduate Catalog*.

Each candidate for a degree in the College of Health and Human Services must satisfy the requirements established by the school in which he or she is enrolled. In addition to program requirements for completion of the bachelor's degree, a student must check with the proposed school for possible entrance requirements which are separate from admission to the college. Those requirements are specified on the following pages.

## ADVISING

A student entering the College of Health and Human Services is assigned an advisor by the school which he or she plans to enter. Advisors will be assigned on the basis of student interest. Faculty advisors assist in the preparation of a schedule each quarter so that the proper sequence of courses in the major and appropriately related courses are selected. The student, however, is responsible for seeing that all requirements for the degree are being met.



## SCHOOL OF HEARING AND SPEECH SCIENCES

William H. Seaton, *Director*

The school grants B.S., M.A., and Ph.D. degrees in hearing and speech sciences. On the bachelor's level a student may elect to pursue certification as a speech therapist in the public schools or a more clinically oriented program. Practicum training occurs in the campus Speech and Hearing Clinic, regional speech clinics, public schools, mental retardation centers, and other clinical or educational settings. Consultation concerning all types of communicative disorders may be arranged with the coordinator of clinical services. Remedial training and diagnostic evaluations are provided without charge to University students. The audiological division evaluates all types of hearing problems from infancy to old age, including hearing aid evaluations. Nominal fees are charged for speech and hearing services to nonstudents. Research in therapy, acoustics, and other areas of communication is implemented by well-equipped laboratories with four sound-proof rooms.

The programs in speech pathology and audiology are accredited by the American Board of Examiners in Speech Pathology and Audiology's Education and Training Board. The Ohio University Speech and Hearing Clinic is accredited by the Professional Services Board of ABESPA. Information about major programs and requirements can be obtained from the school office in Lindley Hall.

## MAJOR IN HEARING AND SPEECH SCIENCES

### Freshman

Freshmen are required to take the Tier I and Tier II requirements of the University. PSY 101, LING 270, and HSS 108, all of which may be used under the Tier II requirement, are to be taken by freshmen; in addition, HSS 107 is required.

Majors are assigned advisors and are expected to see their advisors during each preregistration period. The program is complex and highly interrelated. Regardless of specialization plans, all HSS majors should apply during the third quarter of the freshman year to the College of Education for admission to teacher education (See College of Education section of this bulletin).

### Sophomore

During the sophomore year students must pass a speech proficiency test administered in HSS 240 and pass the departmental phonetics proficiency test during either winter or spring quarter. Courses with an asterisk (\*) may be taken by all majors but are required only for those students who are seeking certification in the public schools.

#### Fall

HSS 209 Phonetics .....	4
HSS 210 Language Development .....	5
PSY 275 Educ. Psych .....	
OR	
EDCI 275 Learning Process .....	5
EDCI 275L .....	1

#### Winter

HSS 213 Anatomy .....	4
HSS 250 Speech Science .....	4
EDSP 270* Classroom Management I .....	3

#### Spring

HSS 270 Basic Audiology .....	4
HSS 222 Diagnostics .....	4
PSY 376 Exceptional Children .....	5
OR	
EDSP 271 Intro. Educ. Except. Children .....	3

Students will also enroll for HSS 240 for one quarter sometime during the year. Majors who will be seeking certification as public school therapists should apply in the third quarter of the sophomore year to the College of Education for advanced standing in professional education (see *College of Education* section of this bulletin).

### Junior

Majors cannot enter junior practicum class without having successfully passed the departmental speech and phonetics proficiency tests. Students who will be seeking certification in the public schools apply for student teaching in their senior year prior to the end of fall quarter. Student teaching is optional. Students not wishing to student teach and obtain certification should obtain information about alternative requirements from the HSS undergraduate coordinator. Courses with asterisks required only for students seeking education certification.

#### Fall

HSS 315 Stuttering .....	3
HSS 318 Articulation Disorders .....	4

#### Winter

HSS 343 School & Clinic Programs .....	2
HSS 344 Disorders of Language .....	4

#### Spring

HSS 319 Voice & Resonance .....	3
HSS 345 Social Dialects .....	3
HSS 433* Professional Training Seminar .....	3-4

The following courses are also required and should be taken either in the junior or senior year. Courses with asterisks must be taken prior to the student teaching quarter by students seeking certification. In addition all majors enroll for HSS 341 Practicum for one quarter during the junior year.

EDEL 311* Teaching of Reading .....	4
EDEL 311L* Lab .....	1
EDGS 410* Human Relations .....	3
EDSP 474* Intro. to Learning Disabilities .....	4
EDCI 401* Urban Experience .....	2
PSY 173 OR EDEL 200 OR HEC 160 .....	4-5
PSY 332 OR PSY 333 OR EDSP 272 .....	3-5
PSY 310 OR LING 350 OR PSY 307 OR EDEL 400 .....	3-5
Advanced English composition: ENG 305 or 308 .....	5

### Senior

Students may not enter senior practicum HSS 442 if they have not obtained a grade of C or better in both HSS 318 and HSS 344. Senior practicum is required for students seeking education certification. Students not seeking education certification are expected to take senior practicum but they may request a waiver of the requirement.

Student teaching assignments are made in public schools in the Cleveland area and its suburbs and throughout the southeast quadrant of Ohio. Student teaching occurs during one full quarter of the senior year.

Students who do not student teach take electives or may do clinical practicum during the free quarter in order to achieve the 192 hours for graduation.

### Student Teaching Quarter

EDPL 461 Stu. Tchng. in Elem. Schools .....	6
EDPL 462 Stu. Tchng. in Elem. Schools .....	7
EDPL 465 Stu. Tchng. Seminar .....	3
OR	
HSS 437 Speech & Hring Therapy in Pub. Schools .....	4

### Other Two Quarters

HSS 471 Auditory Rehabilitation .....	5
HSS 479 Basic Manual Comm. ....	3
HSS 424 Neuropathology .....	4
HSS 442 Senior Practicum .....	3
Electives	
HSS 442C Clinical Internship (permission only) .....	1-15

## SCHOOL OF HOME ECONOMICS

Shirley Slater, *Director*

The School of Home Economics is committed to the search for, and the application of, concepts and competencies which enable the individual to meet basic needs and to improve the quality of life within the context of his or her natural and interpersonal environment. The educational program focuses on the problems of human welfare that are of compelling significance in contemporary society: nutrition and health, design and environmental analysis, consumer decision making, emotional stability, and the effects of technology and economic policy on such things as food, clothing, housing, and interpersonal relationships.

The curricula of the School of Home Economics have four specific purposes.

1. To offer programs which provide specialized preparation for professionals in: human development and family ecology, human nutrition and food sciences, human environment and design, and consumer service and education.
2. To offer courses for the University community which enable the individual to meet basic needs and to improve the quality of life.
3. To offer continuing education and community service in response to basic and social needs.
4. To promote and support research and discovery.

The program is both cultural and professional. It includes general education in communications, natural science, humanities, social science, and art as well as basic courses in all areas of home economics and professional courses in the major field and related areas.

The School of Home Economics offers 18 professional curricula leading to the B.S. in home economics degree. In addition, four curricula are offered for those following the two-year terminal program leading to the A.A. degree. Graduate work leading to the M.S. degree is also offered (see *Graduate Catalog*).

**Special Facilities.** The program in home economics provides for a variety of activities and experiences. One child development center and one home management

house are maintained on campus. Local high school home economics laboratories are available for student teaching. The School of Home Economics is approved by the State of Ohio Department of Education for training vocational home economics teachers. Off-campus activities have been developed with the Ohio State Cooperative Extension Service, the Health Department, business organizations, department stores, hospital dietary departments, and radio-television stations to give the students opportunities for field work in specialized areas. Affiliation with the Merrill-Palmer Institute in Detroit, Mich., provides a unique experience for the junior or senior desiring a quarter of specialized training in all areas related to human development.

**Elective Courses and Special Programs.** The School of Home Economics offers a group of courses that have no prerequisites and are open to any student in the University. Individual courses may be elected. Special seminars or workshops for in-service training are offered each summer and during the year when there is a need.

## DEGREE REQUIREMENTS FOR ALL HOME ECONOMICS MAJORS

Candidates for the degree of B.S. in home economics must fulfill the general requirements of the University, must complete a minimum of 192 hours, plus any physical education in excess of three hours. A point-hour ratio of 2.0 (C) is required on all hours attempted, but includes only final hours and grade points on repeated courses.

Opportunities for the professional home economist have never been greater in the business and professional world. Career opportunities are listed under each professional option. All majors in any field will take courses listed under requirements in General Education, requirements in home economics basic courses, and requirements in his or her area of specialization. Courses in the major area of specialization and allied courses are listed under specialized requirements.

## REQUIREMENTS FOR PROFESSIONAL CURRICULA

### Human Development and Family Ecology

**Option A — Early Childhood Education:** prepares students for teaching in nursery schools, daycare centers, Head Start programs, and schools for handicapped children.

### General Education Requirements

ENG 172 Contemp. Wrting. Skills .....	5
ENG 315 Am. Lit. ....	3
INCO 103 Pub. Spkng. ....	4
PSY 101 Gen. Psych. ....	5
SOC 101 Intro. to Sociology .....	5
OR	
SOC 302 Prin. of Sociology .....	4
ECON 101 Prin. of Econ. ....	4
OR	
ECON 301 Intro. to Econ. Analys. ....	5
ZOOL 101 Prin. of Biol. ....	5
BOT 102 Plant Biol. ....	5
ZOOL 103 Human Biol. ....	4

### Home Economics Basic Requirements

HEG 101 Prof. Awareness .....	2
HHD 180 Furnishing Today's Home .....	3

HEFN 232 Infant & Child Nutrition .....	4
HECE 390 or 395 Family Consumer Econ. or Mgt. ....	3

### Specialized Requirements

HECF 160 Intro. to Child Devel. ....	4
HECF 361 Preschool Guidance .....	4
HECF 465 Parent Educ. ....	4
HECF 365 Infant Educ. ....	4
HECF 363 Creative Exper. with Young Children .....	2-4
HECF 364 Premath & Science Exper. with Young Children .....	2-4
HECF 299 Soph. Practi.-Prof. Assessment .....	2-5
HECF 399 Jr. Practi.-Prof. Devel. ....	2-5
HECF 400 Sr. Seminar .....	1-3
HECF 464 Early Childhood Practi. ....	6-12
HECF 462A Pluralistic Life Styles .....	2
HECF 462B Parenthood .....	2
HECF 462D Single Parent Family .....	2
HECF 463 Preschool Admin. ....	5
HECF 371 Family Devel. ....	3
HECF 467 Theories of Child Devel. ....	4
ART 360 Art for Elem. Educ. ....	6
EDAV 480 Intro. to Educ. Media. ....	4
EDCI 275 or PSY 275 Learning Proc. in Classroom/ Educ. Psych. ....	5
EDGS 410 Human Relations .....	3
EDSP 271 Intro. to Educ. of Except. Children & Youth .....	3
EDSP 272 Intro. to Educ. of Mentally Retarded Children & Youth .....	3
EDSP 470 Classroom Mgt. with Problem Children .....	3
HPER 227C First Aid .....	3
HPER 485C Perceptual Motor Devel. in Children .....	3
HSS 309 Phonetics .....	3
HSS 310 Lang. Development .....	5
HSS 336 Speech & Hearing Disorders in Pub. School. ....	3-4
MUS 262 Music for the Preschool Child .....	3
PSY 121 Elem. Stat. ....	5
PSY 304 Human Learning .....	5
PSY 332 Abnormal Psych. ....	5
SOC 223 Am. Sociology .....	4
OR	
SOC 309 Sociology of Appalachia	

**Option B — Child Development-Community Service:** prepares student for graduate study in child development or for work with community agencies, children's hospitals, clinics, children's homes, and Head Start programs.

### General Education Requirements

ENG 172 Contemp. Wrting. Skills .....	5
ENG 315 or 316 Am. Lit. or Engl. & Continental Lit. ....	3
INCO 103 Pub. Spkng. ....	4
SOC 101 Intro. to Sociology .....	5
ECON 101 or 301 Prin. of Econ./Intro. to Econ. Analys. ....	4
PSY 101 Gen. Psych. ....	5
ZOOL 101 or BOT 101 Prin. of Biol. ....	5
BOT 102 Plant Biol. ....	5
ZOOL 103 Human Biol. ....	4

### Home Economics Basic Requirements

HEG 101 Prof. Awareness .....	2
HEID 180 Furnishing Today's Home .....	3
HEFN 128 Intro. to Nutrition .....	3
HECE 395 Home Mgt. ....	3
HECE 390 Family Consumer Econ. ....	3

### Specialized Requirements

HECF 160 Intro. to Child Devel. ....	4
HECF 370 Family Living .....	3
HECF 361 Preschool Guidance .....	4
HECF 299 Soph. Practi.-Prof. Assessment .....	2-5
HECF 371 Family Devel. ....	3
HECF 360 Human Sexuality .....	3
HECF 399 Jr. Practi.-Prof. Devel. ....	2-5
HECF 462A Pluralistic Life Styles .....	2
HECF 462B Parenthood .....	2
HECF 462C Middle Childhood .....	2

HECF 462D One Parent Family .....	2
HECF 462E Youth Identity Crisis .....	2
HECF 462F Aging Family. ....	2
HECF 400 Sr. Seminar .....	1-3
HECE 396 Home Mgt. Lab .....	4
ANTH 270 Basic Concepts of Anth. ....	5
EDGS 410 Human Relations .....	3
GEOG 201 Man & His Phys. Environment. ....	4
HPER 277C First Aid .....	4
LS 201 Library Resources .....	3
MGT 200/300 Intro. to Mgt./Mgt. ....	4
PSY 121 Elem. Stat. ....	5
PSY 131 Psych. of Adjustment .....	4
PSY 333 Psych. of Personality .....	5
SOC 309 or 315 Soc. of Appalachia or Indiv. in Mass Society .....	4
SOC 361 or 363 Deviant Behavior or Juvenile Delinquency .....	4
SW 290 Social Security System .....	4
SW 391 Welfare System .....	4
SW 392 Social Services .....	4
SW 490C Special Studies .....	10

**Option C — Family Life - Community Service:** prepares students for graduate study in family life or for work with youth programs, community recreation, settlement houses, and family service agencies.

### General Education Requirements

ENG 172 Contemp. Wrting. Skills .....	5
ENG 315 Am. Lit. ....	3
INCO 103 Pub. Spkng. ....	4
SOC 101 Intro. to Sociology .....	5
ECON 101 Prin. of Econ. ....	4
PSY 101 Gen. Psych. ....	5
ZOOL 101 Prin. of Biol. ....	5
ZOOL 103 Human Biol. ....	4

### Home Economics Basic Requirements

HEG 101 Prof. Awareness .....	2
HEID 180 Furnishing Today's Home .....	3
HEFN 128 Intro. to Nutrition .....	4
HECE 390 Family Consumer Econ. ....	3
HECE 395 Home Mgt. ....	3

### Specialized Requirements

HECF 160 Intro. to Child Devel. ....	4
HECF 370 Family Living .....	3
HECF 299 Soph. Practi.-Prof. Assessment .....	2-5
HECF 360 Human Sexuality .....	3
HECF 371 Family Devel. ....	3
HECF 465 Parent Educ. ....	4
HECF 399 Jr. Practi.-Prof. Devel. ....	2-5
HECF 462A Pluralistic Life Styles .....	2
HECF 462B Parenthood .....	2
HECF 462C Middle Childhood .....	2
HECF 462D One-Parent Family .....	2
HECF 462E Youth Identity Crisis .....	2
HECF 462F Aging Family .....	2
HECF 471 Family Life Educ. ....	4
HECF 400 Sr. Seminar .....	1-3
HECF 499 Field Exper.-Human Devel. & Family Ecology .....	5-12
ANTH 270 Basic Concepts of Anth. ....	5
EDGS 410 Human Relations .....	3
GEOG 201 Man & His Phys. Environment. ....	4
HPER 277C First Aid .....	4
LS 210 Library Resources .....	3
MGT 200 Intro. to Mgt. ....	4
PSY 121 Elem. Stat. ....	5
PSY 131 Psych. of Adjustment .....	4
PSY 333 Psych. of Personality .....	5
PSY 241 Behavioral Measurement .....	5
PSY 490D Psych. of Adulthood & Aging .....	4
SOC 315 Indiv. in Mass Society .....	4
SOC 361 Deviant Behavior .....	4
SW 290 Social Security System .....	4
SW 391 Welfare System .....	4
SW 392 Social Services .....	4

**Option D — Special Education/Early Childhood:** prepares persons to meet State of Ohio teacher certification requirements as teachers of the educable mentally retarded and as teachers of children with learning disabilities and/or behavior disorders, and to be teachers in preschool. At the present time, there is no teaching certificate for preschool; however, such certification is being discussed and may be enacted in the near future. The preschool aspect of this major meets what is currently being discussed as possible certification requirements. The concept of trained personnel working in special education with preschool children is one of the national trends in education.

The current program in preschool teaching is part of the School of Home Economics and the current program in special education is part of the School of Curriculum and Instruction, in the College of Education. This program would provide for each student to choose the school in which he or she wishes to enroll; therefore, a student could earn either a bachelor of science in home economics or a bachelor of science in education. Either way the student chooses, he or she would follow the same program and earn the same certificate. The following curriculum includes all requirements for this program.

### General Education Requirements

Social Sciences: 8	
ECON 101 Prin. of Econ.	4
OR ECED 346 Econ. in Curriculum	3-5
SOC 101 Intro. to Sociology	5
OR SOC 201 Social Problems	4
Natural Sciences: 9	
ZOOL 101 Prin. of Biol.	
OR BOT 101 Prin. of Biol.	5
ZOOL 103 Human Biol.	4
PSY 101 Gen. Psych.	5
INCO 101 Fundamentals of Speech	3
OR INCO 103 Pub. Spkng.	4
English	5
HSS 108 Intro. to Speech Disorders	3
OR HSS 336 Speech & Hearing Disorders	
in the Pub. Schools	3-4
MATH 120 Elem. Topics in Math.	5
Music: 6	
MUS 160 Music Fundamentals	3
MUS 161 or 262 Music for Classroom Teacher	3
ART 360 Art for Elem. Teachers	6
HPER 7-9	
HPER 202 Personal & Community Health	
OR HPER 227 First Aid	4
HPER 333 Theory of Adapted Activities	
OR HPER 250 Recreation Leadership	3
OR HPER 435 Recreation & Phys. Ed. for	
Mentally Retarded & Learning Disabled	5

### Related Professional Education

EDEL 310 Tchng. of Reading & Lang. Arts in	
Elem. School	6
HECF 463 Preschool Admin	5
EDEL 306 Kindergarten Educ	6
EDGS 410 Human Relations	3
EDEL 321 Children's Lit	4
EDAV 480 Intro. to Educ. Media	4

### Major

Special Education 49	
Block I	
EDSP 271 Intro. to Educ. of Except	
Children & Youth	3
HECF 160 Intro. to Child Devel	
OR EDEL 200 Studies of Children	4
Block II	
EDSP 272 Intro. to Educ. of Mentally Retarded	
Children & Youth	3

EDSP 373 Curriculum Devel. for	
Handicapped Children	3
EDSP 470 Classroom Mgt. with Problem Children	3
EDCI 275 Learning Proc. in Classroom	
OR PSY 275 Educ. Psych.	5
EDSP 490 Study of Special Educ.	1-5
Block III	
EDSP 374 Lang. Arts for Mentally Retarded	4
EDSP 375 Social Studies & Science for	
Mentally Retarded	4
EDSP 377 Voc. Educ. for Handicapped	3
EDSP 474 Diagnosis & Remediation of Specific	
Learning Disabilities	4
EDSP 490 Study of Special Educ.	1-5
Block IV	
EDSP 376 Math. for Mentally Retarded	2
EDSP 476 Tchng. Learning Disabled	4
EDSP 490 Study of Special Educ.	1-5
Early Childhood: 22	
HECF 360 Human Sexuality	3
HECF 363 Creative Exper. with Preschool	
Children	4
HECF 371 Family Devel.	3
HECF 462B Parenthood	2
HECF 462D One-Parent Family	2
HEFN 232 Infant & Child Nutrition	3
HECF 361 Prin. of Preschool Guidance	4

### Professional Laboratory Experience

EDPL 360 or 361 Field Exper. in Elem. or Second.	
Schools or Field Service in Educ.	2

Students must sign up with the director of the Child Development Center, at least one year in advance.

**Option E — Elementary Education/Early Childhood:** detailed under the School of Curriculum and Instruction in the College of Education section of the catalog. This is a dual program and a student can earn either a bachelor of science in home economics or a bachelor of science in education.

### Human Nutrition and Food Science

**Option A — Dietetics and Community Nutrition:** meets American Dietetic Association academic requirements qualifying students for internship in general and community specializations — Plan IV.

### General Education Requirements

ENG 172 or equiv. Contemp. Wrting. Skills	5
INCO 101/103 Speech/Pub. Spkng.	3-4
PSY 101 Gen. Psych.	5
SOC 101 or 302 Intro. to Sociology/Prin. of Sociology	5
ECON 101/102 or 301/302 Prin. of Econ. or	
Intro. to Econ. Analys.	8
CHEM 141, 142, 143 Intro./Chem. Energetics/	
Quant. Analys. or	
CHEM 121, 122, 123 Intro./Solutions/Environ.	15
MATH 113 or equiv. Algebra	5
ART 101/102 2-Dimensional Design/	
3-Dimensional Design	4
Humanities, literature or language elective	4

### Home Economics Basic Requirements

HEG 101 Prof. Awareness	2
HEID 180 Furnishing Today's Home	3
HECF 371 or HECF 160 Family Devel. or	
Intro. to Child Devel.	3-4
HECE 390 Family Consumer Econ.	3

### Specialized Requirements

HEFN 120 or equiv. Meal Mgt	3
HEFN 222 Food Science	4
HEFN 128 Intro. to Nutrition	4
HEFN 299 Soph. Pract. Prof. Assessment	2-5
HECL 391 Equipment	4
HELN 334 Quantity Food Prod	4

HEFN 399 Jr. Practi.-Prof. Devel. ....	2-5
HEFN 426 World View of Nutrition .....	3
HEFN 437 Food Service Systems I .....	4
HEFN 422 Experimental Foods .....	4
HEFN 428 Adv. Nutrition .....	4
HEFN 430 Therapeutic Nutrition .....	4
HEFN 438 Food Service Systems II .....	4
HEFN 429 Community Nutrition .....	3
HEFN 400 Seminar .....	1
HEFN 499 Field Exper. - Foods & Nutrition .....	5-12
ANTH 270 or 370 Basic Concepts or Gen. Anth. ....	5
ACCT 101 Managerial Acct. ....	4
CHEM 301, 302 Organic Chem. ....	6
CS 150 Comput. Science-Survey .....	4
EDCI 275/PSY 275 Learning Proc. in Classroom/ Educ. Psych. ....	5
MGT 300 Intro. ....	4
MGT 420 Admin. of Personnel .....	4
MICR 211 and 212 or 411 Microbiology .....	6
PSY 121 Elem. Stat. for Behavioral Sciences .....	4
ZOOL 345 Human Physiology .....	4
ZOOL 463 Cell Chem. ....	4

**Option B — Food Service Management:** prepares students for careers in management and supervision in hotels, motels, restaurants, public schools, residence halls, and industry.

### General Education Requirements

ENG 172 or equiv. Contemp. Wrting. Skills .....	5
INCO 101/103 Speech/Pub. Spkng. ....	3-4
PSY 101 Gen. Psych. ....	5
SOC 101/302 Intro. to Sociology/Prin. of Sociology .....	5
ECON 101/301, 102/302 Prin. of Econ./Intro. to Econ. Analys. ....	8
CHEM 121, 122, 123 Intro./Solutions/Environmental .....	12
MATH 113 Algebra .....	5
ART 101/102 2-Dimensional Design or 3-Dimensional Design. ....	4
Humanities, literature or language elective .....	4

### Home Economics Basic Requirements

HEG 101 Prof. Awareness .....	2-4
HECF 160/371 Child Devel. or Family Devel. ....	3-4
HEID 180 Furnishing Today's Home .....	3
HECE 390 Family Consumer Econ. ....	3

### Specialized Requirements

HEFN 120 Meal Mgt. ....	3
HEFN 128 Intro. to Nutrition .....	4
HEFN 222 Food Science Prin. ....	4
HEFN 299 Soph. Practi.-Prof. Assessment .....	2-5
HEFN 334 Quantity Food Production .....	4
HEFN 399 Jr. Practi.-Prof. Devel. ....	2-5
HEFN 400 Sr. Seminar .....	1-3
HEFN 422 Experimental Foods .....	4
HEFN 437 Food Service Systems I .....	4
HEFN 438 Food Service Systems II .....	4
HEFN 499 Field Exper.-Foods & Nutrition .....	5-12
HECE 391 Equipment .....	4
HETC 315 Elem. Textiles .....	4
ACCT 101, 102 Managerial .....	8
BUSL 255 Law & Society .....	4
CS 150 Computer Science-Survey .....	3
JOUR 250 Advert. Prin. ....	5
MGT 300 Intro. ....	4
MGT 420 Admin. of Personnel .....	4
MGT 425 Industrial Relations .....	4
MKT 301 Marketing Prin. ....	4
MICR 211, 212 Environmental Micr./Lab. ....	5
PSY 275/EDCI 275 Educ. Psy./Learning Processes in the Classroom .....	5
Elective in business, industrial engineering, finance, manage- ment, or marketing .....	4

**Option C — Foods in Business and Communication:** prepares students for promotional work with utility companies, food or equipment companies, newspapers, and magazines.

### General Education Requirements

ENG 172 or equiv. Contemp. Wrting. Skills .....	5
INCO 101/103 Speech/Pub. Spkng. ....	3-4
PSY 101 Gen. Psych. ....	5
SOC 101/302, ANTH 270/370 Intro. to Sociology/ Basic Concepts or Gen. Anth. ....	5
ECON 101, 102/301, 302 .....	8
CHEM 121/141, 122/142, 123/143. ....	12-15
MATH 113 or equiv. Algebra .....	5
ART 101/102 2-Dimensional Design or 3-Dimensional Design. ....	4
Humanities, literature or language elective .....	4

### Home Economics Basic Requirements

HEG 101 Prof. Awareness .....	2
HECF 160/371 Child Devel. or Family Devel. ....	3-4
HEID 180 Furnishing Today's Home .....	3
HETC 315 Elem. Textiles .....	4
HECE 390 Family Consumer Econ. ....	3

### Specialized Requirements

HEFN 120 Meal Mgt. ....	3
HEFN 128 Intro. to Nutrition .....	4
HEFN 222 Food Science Prin. ....	4
HEFN 299 Soph. Practi.-Prof. Assessment .....	2-5
HEFN 321 Creative Cookery & Food Styling .....	3
HEFN 325 Food & Consumer .....	3
HEFN 334 Quantity Food Prod. ....	4
HEFN 399 Jr. Practi.-Prof. Devel. ....	2-5
HEFN 400 Sr. Seminar .....	1-3
HEFN 422 Experimental Foods .....	4
HEFN 423 Food Preservation .....	3
HEFN 426 World View of Nutrition .....	3
HEFN 499 Field Exper.-Foods & Nutrition .....	5-12
HECE 391 Equipment .....	4
HECE 395 Home Mgt. ....	3
CHEM 301, 302 Organic Chem. ....	6
MICR 211, 212/411 Environmental Microbiology .....	5-6
JOUR 250 Advert. Prin. ....	5
MGT 325 Comm. Behavior in Mod. Organization .....	4
CS 150/252/PSY 121 Comput. Science/Stat. ....	3-5
Select two of the following:	
JOUR 231A/441 .....	4
MGT 300/MKT 301 .....	4
Approved InCo course beyond general education requirement .....	3-4
Business/communication elective .....	4

**Option D — Nutrition with Science (Zoology):** meets American Dietetic Association academic requirements qualifying students for internships with clinical emphasis — Plan IV. It also provides a basis for those students desiring graduate study and research in nutrition and/or zoology. Certain other preprofessional undergraduates, such as those in premedicine, with a strong interest in nutrition, will find the program satisfies requirements for admittance to professional schools. A student can major either in human nutrition and food science in the School of Home Economics, College of Health and Human Services or in the Department of Zoology and Microbiology in the College of Arts and Sciences.

### General Education Requirements

English Composition .....	10
INCO 101/103 Speech/Public Speaking .....	3-4
PSY 101 Intro to Psychology .....	5
SOC 101/103 Intro to Sociology/Prin. of Sociology .....	5
ECON 101, 102 Prin. of Econ. ....	4,4
CHEM 141, 142, 143 Intro/Chem Energetics/ Quant. Analysis .....	15
MATH 163A, 163B Intro to Calculus .....	8
PHYS 201, 202 Intro. to Physics .....	8

### Specialized Requirements

CHEM 301, 302 Organic Chem. ....	6
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ZOOL 150, 151 Intro to Zoology	12
ZOOL 325 Genetics	5
ZOOL 303 Comparative Vertebrate Anatomy	6
MICR 211, 212 Environmental Microbiology	6
OR	
MICR 411 General Microbiology	6
ZOOL 463 Physiological Chem.	4
ZOOL 464 Physiological Chem. Lab.	3
ZOOL 482D Mammalian Physiology	6
HEFN 128 Intro. to Nutrition	4
HEFN 222 Food Science Principles	4
HECF 160 Intro. to Child Development	4
OR	
HECF 371 Intro. to Family Development	3
PSY 121 Statistics	5
PSY 275 Ed. Psych.	5
MGT 300 Management	4
HEFN 422 Experimental Foods	4
HEFN 428 Adv. Nutrition	4
HEFN 429 Community Nutrition	3
HEFN 430 Therapeutic Nutrition	4
HEFN 299 Soph. Practicum	3
HEFN 399 Junior Practicum	5
HEFN 499 Field Experience	5-12
HEFN 400 Senior Seminar	1
HEFN 431 Res. in Nutrition	3

### Additional Suggested Courses

HEFN 120 Meal Management	3
HEFN 423 Food Preservation	4
HEFN 426 World View of Nutrition	3
HEFN 334 Quantity Food Production	4
MICR 417 Advanced General Microbiology	6
CS 201 Introduction to Computing	5

Students majoring in home economics must fulfill School of Home Economics degree requirements including 12 hours of approved home economics core courses selected across the four areas.

The course sequence should be adhered to closely and always in consultation with an advisor assigned to the student either in the School of Home Economics or the Department of Zoology and Microbiology.

### Consumer Service and Education

**Option A — Home Economics Education:** prepares students for teaching home economics in the junior and senior high schools and adult education programs.

Basic course requirements for all home economics education majors.

### General Education Requirements

INCO 103 Pub. Spkng	4
English or Language	13 15
PSY 101 Gen. Psych	5
SOC 101 or 301 Intro. to Sociology	5
ECON 101 or 301 Prin. of Econ	4
CHEM 121, 122 and 123	12
OR	
BOT 101, 102 and ZOOL 103	14
OR	
ZOOL 101, 103 and 203	15
MATH or PSY 121	2 5
MICR 211 and 212 Environmental Microbiology	5
ART 101 or 102 Studio Foundations	4
Comparative art, religion or philosophy	4 5

### Home Economics Basic Requirements

HEG 101 Prof. Awareness	2
HEFN 128 Intro. Nutrition	4
HEED 180 Furnishing Today's Home	3
HECF 371 Family Devel	3
HECE 395 Home Mgt	3

### Specialized Requirements:

HEFN 120 Meal Mgt.	3
HEFN 222 Food Science Prin.	4
HETC 113 Design Analysis: Theory & Prin.	5
HETC 315 Elem. Textiles	4
HETC 317 Textiles & Dress & Environment	3
HECF 160 Intro. to Child Devel.	4
HECF 361 Preschool Guidance	4
HECE 390 Family Consumer Econ.	3
HECE 396 Home Mgt. Lab.	4
HECE 391 Equipment	4
HECE 340 Tchng. Home Econ	4
HECE 299 Seminar	2-5
HECE 399 Seminar	2-5
EDPL 465 Seminar	3
ECED 447 Econ. Analys. & Its Applic. to Curriculum	4
Approved Electives from 300-400 level courses in:	
Human Nutrition and Food Science	3-4
Human Environment and Design	6-8
Human Development and Family Ecology	3-4

### Professional Education:

PSY 275 or EDCI 275 Educ. Psych./Learning Proc.	
in Classroom	5
EDSE 250 Analys. of Tchng.	4
EDSE 351 Instruct. Proc. & Curriculum	5
EDPL 360 or 361 Field Exper. Second. Schools/	
Field Service in Educ.	2
EDPL 463 and 464 Stu. Tchng.	12
EDPL 465 Seminar in Home Econ. Educ.	3
EDSE 480 School & Society	3

Students may complete requirements for job training certification by taking 45 hours of coursework in a specialized area of home economics. Permission must be granted by the home economics education advisor. The three options are:

**Option B — Job Training - Child Care Services.**

**Option C — Job Training - Food Service.**

**Option D — Job Training - Community and Home Service.**

**Option E — Home Economics Extension:** prepares students for positions with the Cooperative Extension Service.

Home economics extension majors take all basic course requirements listed above for home economics education majors.

Suggested course:

HEED 444 Home Econ. in Adult Educ.	4
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**Option F — Home Economics in Business:** a special option which can be combined with any other area of home economics. Students are prepared for positions with newspapers, women's magazines, radio and television companies, department stores, and manufacturing companies.

### General Education Requirements:

English or literature	10
INCO 103 Pub. Spkng	4
SOC 101 or 302 Intro. to Sociology or	
Prin. of Sociology	5
PSY 101 Gen. Psych	5
ECON 101 or 301 Prin. of Econ. or Intro. to	
Econ. Analys.	4
CHEM 121, 122, 123	12
OR	
ZOOL 101, BOT 102, ZOOL 103	14
OR	
PSC 101L, 102L, 103L	12
Comparative arts, religion or philosophy	9

ART 102 Studio Foundations .....	4
General Education Electives .....	10

**Home Economics Basic Requirements:**

HEG 101 Prof. Awareness .....	2
HEFN 128 Intro. to Nutrition .....	4
HECF 371 Family Devel. ....	3
HECE 390 Family Consumer Econ. ....	3
HECE 395 Home Mgt. ....	3
HEID 180 Furnishing Today's Home .....	3

**Specialized Requirements:**

R-TV 106 Intro. to R-TV .....	4
R-TV 121 Radio Performance .....	4
JOUR 231 News Rptng. ....	4
JOUR 331 Rptng. Contemp. Issues .....	3
JOUR 441 Mag. Feature Wrting. ....	4
INCO 404 Prin. & Tech. of Interviewing .....	3
INCO 412 Adv. Pub. Spkng. ....	3
EDGS 410 Human Relations .....	3
Approved electives in journalism or radio- television .....	10-13
Approved courses selected from one specialized area of home economics .....	35-45
Sophomore practicum in selected area .....	2-5
Junior practicum in selected area .....	2-5
Field Experience in area .....	5-12
Senior Seminar in area .....	1-3

**Human Environment and Design****Textiles and Clothing**

**Option A — Fashion Merchandising and Promotion:** prepares students for retail managerial and promotional positions such as buyer, fashion coordinator, or consultant in department stores; traveling stylist for pattern or fabric manufacturers; for promotional instruction and demonstration; and for fashion writing.

**General Education Requirements:**

INCO 103 Pub. Spkng. ....	4
ENG 172 Contemp. Wrting. Skills .....	5
English Elective .....	5
PSY 101 Gen. Psych. ....	5
SOC 101 Intro. to Sociology .....	5
ECON 101, 102 Prin. of Econ. ....	8
CHEM 121, 122, 123 Chem. ....	12
OR	
PSC 101L, 102L, 103L .....	12
ART 102, 128 Dimensional Design, Basic Drawing .....	8
Comparative Arts (6) (2 quarters) .....	6
Approved General Education Electives .....	7

**Home Economics Basic Courses:**

HEG 101 Prof. Awareness .....	2
HEID 180 Furnishing Today's Home .....	3
HECF 371 Family Devel. ....	3
HECE 390 Consumer Econ. ....	3
HEFN 325 Foods & Consumer .....	3

**Specialized Requirements:**

HETC 315 Elem. Textiles .....	4
HETC 117 Textiles & Dress in Environment .....	3
HETC 213 Design Analys.: Theory & Prin. ....	5
HETC 415 Design Analys.: Flat Pattern .....	4
One of the following:	
HETC 316 Design Analys.: Tailoring .....	4
HETC 313 Design Analys.: Experimental .....	4
HETC 417 Fashion Merchandising: Mgt. ....	3
HETC 318 Fashion Merchandising: Promotion .....	4
HETC 407 Fashion Industries .....	4
HETC 405A History of Costumes .....	4
HETC 405B History of Textiles .....	2
HETC 418 Quality Control .....	4

HETC 299 Soph. Practi.-Prof. Assessment .....	2-5
HETC 399 Jr. Practi.-Prof. Devel. ....	2-5
HETC 499 Field Work: Merchandising .....	5-12
HETC 400 Sr. Seminar .....	1-3
ACCT 101 Managerial Acct. ....	4
CS 150 Computer Science Survey .....	3
JOUR 250 Advert. Prin. ....	5
JOUR 231 or 441 News Rptng. or Mag. & Feature Wrting. ....	4
MKT 301 Mkt. Prin. ....	4
MGT 300 Mgt. ....	4
Approved business/communication electives	

**Option B — Fashion Merchandising and Textiles**

**Testing:** prepares students for positions in testing laboratories and consumer service departments of large chain companies or fabric manufacturers, and for promotional instruction and product development in related industries such as in laundry equipment and soap or detergent companies.

**General Education Requirements:**

INCO 103 Pub. Spkng. ....	4
ENG 172 Contemp. Wrting. Skills .....	5
English Elective .....	5
PSY 101 Gen. Psych. ....	5
SOC 101 Intro. to Sociology .....	5
ECON 101, 102 Prin. of Econ. ....	8
CHEM 121, 122, 123 Chem. ....	12
ART 101 2-Dimensional Design, ART 100 Vis. Art .....	7
Comparative Arts (2 quarters) .....	6
Approved general education electives .....	5

**Home Economics Basic Requirements:**

HEG 101 Prof. Awareness .....	2
HEID 180 Furnishing Today's Home .....	3
HECF 371 Family Devel. ....	3
HECE 390 Consumer Econ. ....	3
HEFN 325 Foods & Consumer .....	3

**Specialized Requirements:**

HETC 315 Elem. Textiles .....	4
HETC 117 Textiles & Dress in the Environ. ....	3
HETC 213 Design Analys.: Theory & Prin. ....	5
HETC 415 Design Analys.: Flat Pattern .....	4
HETC 318 Fashion Merchandising: Promotion .....	4
HETC 407 Fashion Industries .....	4
HETC 405A History of Costumes .....	4
HETC 205B History of Textiles .....	2
HETC 418 Quality Control .....	4
HETC 419 Textile Testing .....	4
HETC 299 Soph. Practi.-Prof. Assessment .....	2-5
HETC 399 Jr. Practi.-Prof. Devel. ....	2-5
HETC 499 Field Work: Textile Testing .....	5-12
HETC 400 Sr. Seminar .....	1-3
CHEM 301 Organic Chem. ....	3
ACCT 101 Managerial Acct. ....	4
CS 150 Computer Science Survey .....	3
JOUR 250 Advert. Prin. ....	5
JOUR 231 or 441 News Rptng. or Mag. & Feature Wrting. ....	4
MKT 301 Mkt. Prin. ....	4
Electives in statistics, math, physics .....	12

**Option C — Fashion Merchandising and Design:** prepares students for the position of apparel designer and other technical or managerial positions in clothing manufacture.

**General Education Requirements:**

INCO 103 Pub. Spkng. ....	4
ENG 172 Contemp. Wrting. Skills .....	5
English Elective .....	5
PSY 101 Gen. Psych. ....	5



SOC 101 Intro. to Sociology	5
ECON 101, 102 Prin. of Econ.	8
CHEM 121, 122, 123 Chem.	12
OR	
PSC 101L, 102L, 103L	12
ART 101, 102 2-Dimensional Design, 3-Dimensional Design	8
CA 117, 118, 119 Compar. Arts	9

### Home Economics Basic Requirements:

HEG 101 Prof. Awareness	2
HEID 180 Furnishing Today's Home	3
HECF 371 Family Devel.	3
HECE 390 Consumer Econ.	3
HEFN 325 Foods & Consumer	3

### Specialized Requirements:

HETC 315 Elem. Textiles	4
HETC 117 Textiles & Dress in Environ.	3
HETC 213 Design Analys.: Theory & Prin.	5
HETC 313 Design Analys.: Experimental	4
HETC 415 Design Analys.: Flat Pattern	4
HETC 316 Design Analys.: Tailoring	4
HETC 416 Design Analys.: Draping	4
HETC 318 Fashion Merchandising: Promotion	4
HETC 407 Textile & Fashion Industry	4
HETC 405A History of Costume	4
HETC 405B (2) Hist. of Textiles or HEID 480 (3) Adv. Home Furnishings	4
HETC 418 Quality Control	4
HETC 299 Soph. Practi.-Prof. Assessment	2-5
HETC 399 Jr. Practi.-Prof. Devel.	2-5
HETC 499 Field Work: Indiv. Design Problem	4
HETC 400 Sr. Seminar	1-3
CS 150 Computer Science Survey	3
JOUR 250 Advert. Prin.	5
JOUR 231 or 441 News Rptg. or Mag. & Feature Wrting	4
MKT 301 Mkt. Pnn.	4
MGT 300 Mgt.	4
ART 128 Basic Drawing	4
Approved electives in studio arts	16

### Design

**Option D — Interior Design:** offers basic preparation that qualifies students for initial positions in the field of home furnishings and interior design.

### General Education Requirements:

English	5
INCO 103 Pub. Spkng	4
PSY 101 Gen. Psych	5
SOC 101 Intro. to Sociology	5
ECON 101 Prin. of Econ.	4
Chemistry or Biology, or Physical Science with Lab	12-14
Comparative Arts, Art History	9
ART 101, 102 2-Dimensional Design, 3-Dimensional Design	8

### Home Economics Basic Requirements:

HECF 160 or 371 Fam. Devel. or Child Devel.	3-4
HEFN 128, 120, 325 Introductory Nutrition or Mea. Mgt. or Food & Consumer	3-4
HECE 395 or HECE 390 Home Mgt. or Consumer Econ.	3
HEG 101 Prof. Awareness	2
HETC 315 Elem. Textiles	4

### Specialized Requirements

HE 104, 105	10
HEID 180 Furnishing Today's Home	3
HEID 299 Soph. Practi.-Prof. Assessment	2-5
HEID 280, 281, 282 Interior Design Studio	15
HEID 399 Jr. Practi.-Prof. Devel.	2-5
HEID 384 Family Housing	3

HEID 385 Home Furnishings Wkshp.	4
HEID 499 Field Work Exper.	5-12
HEID 400 Sr. Seminar: Prof. Evaluation	1-3
HEID 480 Hist. of Furniture	4
HEID 481 Contemp. Design in Furniture	3
HEID 482 Design in Home Accessories	3
HEID 483, 484, 485 Adv. Interior Design Studio	15
JOUR 250 Advert. Prin.	5
MKT 301 Mkt. Prin.	4
Approved business electives	8

## SCHOOL OF HEALTH, PHYSICAL EDUCATION, AND RECREATION

James A. Lavery, *Director*

The School of Health, Physical Education, and Recreation has the following curricula:

### Teacher Certification Programs

- A. Major
  1. Health Education
  2. Physical Education
- B. Minor Concentrations
  1. Health Education
  2. Physical Education

### Non-Teaching Certification Programs

- A. Majors
  1. Community Health Services
  2. Environmental Health Science
  3. Recreation Studies
- B. Minor Concentration
  1. Coaching
  2. Health Education
  3. Physical Education
  4. Recreation
- C. Certification
  1. Athletic Training (NATA)
  2. School Nurse

Upon satisfactory completion of the requirements in any of the major programs in the school, students may apply for the appropriate bachelor of science degree in either health, physical education, or recreation studies.

The school also offers the master of science degree in physical education, physiology of exercise, and the master of sports administration.

## TEACHER CERTIFICATION PROGRAMS

### Health Education

A major in health education prepares students for teaching in the secondary schools.

### General Education Requirements

All students in health education must complete general education courses in order to be eligible for graduation

1. Science	
ZOOE 101 Introduction to ZOOE	5

GEOL 201 or GEOG 201 Man & Phys. Envir.....	4
CHEM 121 Principles of Chemistry .....	4
2. Mathematics	
Any course in the Mathematics Department except 011, 032, 109A, 109B, 320 and 420 is acceptable for the mathematics requirement. Also PSY 121 counts toward the mathematics requirement .....	5
3. Comparative arts and/or philosophy	
Each student is required to complete at least two courses in this area. The two courses need not be in one field. Possibilities include any courses in the Philosophy Department; Comparative Arts Department; HUM 107, 108, 109, 307, 308, and 309; theater history courses; Art History Department; Art Department except for ART 360, 460, 461, 462; School of Music courses except for music education courses, music therapy courses, and the one- or two-hour participation courses .....	6
4. Social Studies	
PSY 101 General Psychology .....	5
SOC 101 Introduction to Sociology .....	5
5. English and Interpersonal Communication	
Each student is required to meet the University minimum English requirement as stated on page 33 of the <i>Ohio University Bulletin</i> . INCO 103 is a specific requirement in this area. INCO 103 may be waived on the basis of one semester of speech in high school. If waived, the course does not count as hours toward graduation nor as a course in this area .....	14

### Professional Education Requirements\*

EDCI 275 Learn. Prog. in Classroom or PSY 275 Educ. Psych. ....	5
EDSE 250, 250L Anal. of Teaching .....	6
EDSE 270, 270L Study of Learning .....	4
EDSE 351 Inst. Process & Curriculum .....	5
EDSE 420 Teaching of Reading .....	4
EDSE 420L Reading Lab .....	1
EDSE 480 School & Society (after student teaching) .....	3
EDM 480 Intro to Educ. Media .....	2
EDCI 401 Urban Field Exp. ....	2
EDPL 461, 462, 465 Student Teaching .....	16

### Methods Course

HPER 369 Tchng. of Health .....	5
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### Foundations of Health\*

MICR 211, 212 Environ. Micro. ....	3-5
ZOOL 301 Human Anat. ....	6
ZOOL 345 Human Physiology .....	4
HEFN 128 Intro. to Nutrition .....	4
HECF 360 Human Sexuality or ZOOL 103 .....	3
HPER 202 Personal & Community Health .....	4
HPER 204 Drugs, Alcohol, & Tobacco .....	3
HPER 227 First Aid .....	3
HPER 228 C.P.R. ....	1
HPER 370 Community Health Problems .....	4
HPER 380 Safety Education .....	4
HPER 409 Tests & Measurements .....	4
HPER 495 School Health Problems .....	5

\*Subject to change

### Physical Education

A major in physical education prepares men and women to teach physical education at the elementary and secondary school levels.

### General Education Requirements

All students in physical education must complete 45-50 hours general education courses in order to be eligible for graduation.

1. Science	
BOT 101 or ZOOL 101 .....	5

ZOOL 301 .....	6
ZOOL 345 .....	4

### 2. Mathematics

Any course in the Mathematics Department except 011, 032, 109A, 109B, 320 and 420 is acceptable for the mathematics requirement. Also PSY 121 counts toward the mathematics requirement.

### 3. Comparative Arts and/or Philosophy

Each student is required to complete at least two courses in this area. The two courses need not be in one field. Possibilities include any courses in the Philosophy Department; Comparative Arts Department; HUM 107, 108, 109, 307, 308, and 309; theater history courses; Art History Department; Art Department except for ART 360, 460, 461, 462; School of Music courses except for music education courses, music therapy courses, and the one- or two-hour participation courses.

### 4. Social Studies

Each student is required to complete at least two courses in social science. The two courses need not be in the same field. PSY 101, which is required, is included as one of the social science courses. Other possibilities include any course in anthropology, economics, economic education, history, political science, sociology, social work, geography, and psychology, EXCEPT PSY 275, 121, 226, 312, and 314.

### 5. English and Interpersonal Communication

Each student is required to meet the University minimum English requirement as stated on page 33 of the *Ohio University Bulletin*. INCO 103 is a specific requirement in this area. INCO 103 may be waived on the basis of one semester of speech in high school. If waived, the course does not count as hours toward graduation nor as a course in this area .....

### Physical Education

Kindergarten through 12th grade certification with special emphasis in teaching physical education at the elementary and secondary levels.

### Professional Education Requirements\*

EDCI 275 Learn Prog. in Classroom or PSY 275 Educ Psych. ....	5
EDSE 250 Anal. of Teaching .....	4
HPER 234, 334, 434 Field Experience .....	4
EDSE 270, 270L Study of Learning .....	4
EDCI 401 Urban Field Experience .....	2
HPER 402 Teaching Strategies .....	3
EDSE 420L Teaching of Reading .....	4
EDSE 420 Reading Lab .....	1
EDM 480 Intro to Educ Media .....	2
EDSE 480 School & Society (after student teaching) .....	3
EDPL 461, 462, 465 Student Teaching .....	16

### Physical Education (Elementary-Secondary with K-12 certification)

ZOOL 301 Human Anatomy .....	6
ZOOL 345 Human Physiology .....	4
HPER 105 Cond. for Activ. & Organic Effic. ....	2
HPER 106 Intro. to Human Movement .....	2
HPER 115 Rhythmic Activities .....	2
HPER 134 Intro to Field Experience .....	2
HPER 222 Tumbling & Mod. Gymnastics .....	2
HPER 223 Track & Field .....	2
HPER 225 Artistic Gymnastics for Women .....	2
OR HPER 268 Men's Gymnastics	
HPER 227 First Aid .....	3
HPER 273 Movement Educ. & Fund. Skills .....	3
HPER 274 Sport & Game Skills for Elem. Sch. Children .....	3
HPER 275 Elem. School Rhythm & Dance .....	3
HPER 302 Kinesiology .....	4
HPER 322 Games, Rhythms & Gymnastics for Elem. Sch. Child .....	3
HPER 333 Theory of Adapted Phys. Ed. ....	3
HPER 404 History & Prin. of Phys. Ed. ....	4
HPER 405 Motor Learning .....	4
HPER 406 Org. & Admin. ....	4
HPER 409 Tests & Measurements .....	4
HPER 485 Percept. Motor Devel. in Children .....	3
HPER 495 School Health Problems .....	5

A. TEAM SPORTS: (Select 2 courses)	
HPER 260A Flag Football	1
HPER 260B Team Handball	1
HPER 262A Field Hockey	1
HPER 262B Soccer	1
HPER 263A Basketball	1
HPER 263B Volleyball	1
HPER 264A Softball	1
HPER 264B Lacrosse	1
B. INDIVIDUAL SPORTS: (Select 1 course)	
HPER 141A Archery	1
HPER 141B Golf	1
HPER 221A Tennis	1
HPER 221B Badminton	1
HPER 224A Wrestling	1
HPER 224B Racquetball	1
C. AQUATICS: (Select 1 course)	
HPER 104 Swimming II	2
HPER 218 Life Saving	2
HPER 220 Water Safety Instructors	2
D. DANCE: (Select 1 course)	
HPER 107 Modern Dance I	2
HPER 116 Social Forms of Dance	2
HPER 117 Folk & Square Dancing	2
HPER 377 Theory & Pract. of Elem. Phys. Ed.	3
PLUS	
One of the following: HPER 371, 372, 373, 374, 375, or 378	3

## NONCERTIFICATION PROGRAMS

### Community Health Services

The program provides students with background courses and field experiences which qualify them for positions in community health. A bachelor of science in health will be awarded to those students completing the prescribed course of study.

### General Education Requirements

All students in health education must complete general education courses in order to be eligible for graduation.

1 Science	
ZOOL 101 Introduction to ZOOL	5
GEOL 201 or GEOG 201 Man & Phys. Envir.	4
CHEM 121 Principles of Chemistry	4
2 Mathematics	
Any course in the Mathematics Department except 011, 032, 109A, 109B, 320 and 420 is acceptable for the mathematics requirement. Also PSY 121 counts toward the mathematics requirement	5
3 Comparative arts and/or philosophy	
Each student is required to complete at least two courses in this area. The two courses need not be in one field. Possibilities include any courses in the Philosophy Department, Comparative Arts Department, HUM 107, 108, 109, 307, 308, and 309; theater history courses, Art History Department, Art Department except for ART 360, 460, 461, 462; School of Music courses except for music education courses, music therapy courses, and the one- or two-hour participation courses	6
4 Social Studies	
PSY 101 General Psychology	5
SOC 101 Introduction to Sociology	5
5 English and Interpersonal Communication	
Each student is required to meet the University minimum English requirement as stated on page 33 of the <i>Ohio University Bulletin</i> . INCO 103 is a specific requirement in this area. INCO 103 may be waived on the basis of one semester of speech in high school. If waived, the course does not count as hours toward graduation nor as a course in this area	14

### Foundations of Health

MICR 211, 212 Envir. Microbiology	5
ZOOL 301 Human Anatomy	6
ZOOL 345 Human Physiology	4

HEFN 128 Intro to Nutrition	4
HPER 202 Personal & Community Health	4
HPER 204 Drugs, Alcohol & Tobacco	3
HPER 227 First Aid	3
HPER 370 Community Health Problems	4
HPER 380 Safety Education	4

### Professional Requirements

INCO 105 or R-TV 105	
or JOUR 105 Intro to Mass Media	4
INCO 205 Tech of Group Discussion	4
OR	
EDGS 440 Foundations in Group Dynamics	4
ECON 101 Principles of Economics	4
PSY 275 Educational Psychology	5
SOC 201 Social Problems	4
SOC 351 Elementary Research Techniques	4
SW 101 Intro to Social Work	3
SW 290 American Social Welfare Institution	4
SW 391 Social Security System	4
HECF 360 Human Sexuality	3
OR	
ZOOL 103 Human Biology	4
HECF 471 Family Life Education	4
EDM 480 Intro to Media	2
EDM 481 Prod. of Instructional Material	4
HPER 360 Envir. Health & Safety	5
OR	
MICR 418 Epidemiology	4
HPER 364 Community Health Field Experience	1-5
HPER 464 Community Health Services Practicum	15
HPER 495 School Health Problems	5

### Community Health Services Option With An Emphasis in Nursing Home Management

The nursing home management emphasis prepares a student for a career in the management of nursing homes and long-term care facilities. It fulfills the academic preparation necessary for the students to qualify to take the licensure examination of the Board of Examiners for Nursing Home Administration.

### General Education Requirements

All students in health education must complete general education courses in order to be eligible for graduation.

1 Science	
ZOOL 101 Introduction to ZOOL	5
GEOL 201 or GEOG 201 Man & Phys. Envir.	4
CHEM 121 Principles of Chemistry	4
2 Mathematics	
Any course in the Mathematics Department except 011, 032, 109A, 109B, 320 and 420 is acceptable for the mathematics requirement. Also PSY 121 counts toward the mathematics requirement	5
3 Comparative arts and/or philosophy	
Each student is required to complete at least two courses in this area. The two courses need not be in one field. Possibilities include any courses in the Philosophy Department; Comparative Arts Department, HUM 107, 108, 109, 307, 308, and 309; theater history courses, Art History Department, Art Department except for ART 360, 460, 461, 462; School of Music courses except for music education courses, music therapy courses, and the one- or two-hour participation courses	6
4 Social Studies	
PSY 101 General Psychology	5
SOC 101 Introduction to Sociology	5
5 English and Interpersonal Communication	
Each student is required to meet the University minimum English requirement as stated on page 33 of the <i>Ohio University Bulletin</i> . INCO 103 is a specific requirement in this area. INCO 103 may be waived on the basis of one semester of speech in high school. If waived, the course does not count as hours toward graduation nor as a course in this area	14

## Foundations of Health

MICR 211, 212 Envir. Microbiology .....	5
ZOOL 301 Human Anatomy .....	6
ZOOL 345 Human Physiology .....	4
HEFN 128 Intro to Nutrition .....	4
HPER 202 Personal & Community Health .....	4
HPER 204 Drugs, Alcohol & Tobacco .....	3
HPER 227 First Aid .....	3
HPER 370 Community Health Problems .....	4
HPER 380 Safety Education .....	4

## Nursing Home Management Core

HS 301 Introduction to Management .....	4
HS 302 Managing Long Term Care I .....	3
HS 303 Managing Long Term Care II .....	3
HS 402 Contemporary Problems in Health Care .....	4
HS 403 Managing Long Term Care III .....	3
HS 480 Practicum I .....	15
HS 481 Practicum II .....	10
HS 490 Independent Study .....	1-5
HS 498 Special Problems (Max. 8 hrs.) .....	3-5

## Professional Requirements

Same as listed for community health services with the exception of the following courses which are deleted:

HPER 363 Community Health Field Experience .....	1-5
HPER 464 Community Health Practicum .....	15
HPER 495 School Health Problems .....	5

## Environmental Health Science

The environmental health science program prepares the student for a career in one of the many fields of public health. It also fulfills the educational requirements for registration as a sanitarian and for admission to graduate school of public health. The bachelor of science in health will be awarded to students completing the prescribed course of study.

## General Education Requirements

1. Science
 

ZOOL 103 Human Biology .....	3
GEOL 201 Man and Physical Envir. ....	4
2. Mathematics
 

Any course in the Mathematics Department except 011, 032, 109A, 109B, 320 and 420 is acceptable for the mathematics requirement. Also PSY 121 counts toward the mathematics requirement .....

5
3. Comparative arts and/or philosophy
 

Each student is required to complete at least two courses in this area. The two courses need not be in one field. Possibilities include any courses in the Philosophy Department; Comparative Arts Department; HUM 107, 108, 109, 307, 308, and 309; theater history courses; Art History Department; Art Department except for ART 360, 460, 461, 462; School of Music courses except for music education courses, music therapy courses, and the one- or two-hour participation courses .....

6
4. Social Studies
 

PSY 101 General Psychology .....	5
SOC 101 Introduction to Sociology .....	5
5. English and Interpersonal Communication
 

Each student is required to meet the University minimum English requirement as stated on page 33 of the *Ohio University Bulletin*. INCO 103 is a specific requirement in this area. INCO 103 may be waived on the basis of one semester of speech in high school. If waived, the course does not count as hours toward graduation nor as a course in this area .....

14

## Foundations of Health

MICRO 211, 212 Envir. Micro .....	5
HPER 202 Personal & Community Health .....	4

HPER 227 First Aid .....	3
HPER 360 Envir. Health & Safety .....	5
HPER 370 Community Health Problems .....	4
HPER 380 Safety Education .....	4

## Professional Requirements

INCO 104 Listening .....	2
INCO 205 Techniques in Group Discussion .....	4
INCO 105 Intro to Mass Communications .....	4
CHEM 121 Principles of Chemistry .....	4
CHEM 122 Principles of Chemistry .....	4
CHEM 123 Principles of Chemistry .....	4
GEOG 201 Envir. and Man .....	4
SOC 223 American Society .....	4
SOC 350 Social Statistics .....	4
SOC 351 Elementary Research Techniques .....	4
ECON 101 Principles of Econ. ....	4
ECON 102 Principles of Econ. ....	4
ZOOL 150 Intro to Zool .....	6
ZOOL 151 Intro to Zool .....	6
ZOOL 437 Medical Entomology .....	6
ZOOL 441 Parasitology .....	6
MICR 418 Epidemiology .....	4
HECF 360 Human Sexuality .....	3
HPER 364 Community Health Field Experience .....	2-5
HPER 464 Community Health Services Practicum .....	15
HPER 495 School Health Problems .....	5

## Recreation Studies

Major and minor curricula are offered for prospective recreation specialists. Upon successful completion of the requirements students who major in recreation may apply for the bachelor of science degree. A degree in recreation will not lead to a teaching certificate in the State of Ohio.

The coursework is designed to prepare students in the basic recreation core and allow them to concentrate in recreation therapy, recreation management, outdoor education and camping, wilderness skills, or special interests.

The major curriculum prepares both men and women to assume positions in city recreation and park departments, state and federal government agencies, youth service agencies, institutional recreation, industrial agencies, religious organizations, camping, commercial recreation, and administration.

The minor in recreation studies is designed to fit the needs of part-time employees in the field of recreation. The curricula will prepare the students for supervision in schools and community recreation programs, summer playgrounds, and camping activities.

## Major Requirements

## I. General Education

(Required 33-35 hrs.)	
ZOOL 101 Prin. of Biol. ....	
OR BOT 101 .....	5
INCO 103 Pub. Spkng. ....	4
English (See English Composition Requirement in this bulletin) .....	10
Comparative Arts or Philosophy Two Courses .....	6
PSY 101 Gen. Psych. ....	5
Math any Except: 011, 032, 109A, 109B, 320, 420 .....	5
Social Studies one course (i.e., history, political science, anthropology, geography, sociology, social work) .....	3-5

## II. Physical Education Core

(Select 20 hrs.)	
HPER 115 Rhythmics .....	2
HPER 218 Life Saving & Water Safety .....	2
HPER 220 Swimming, Lifesaving, WSI .....	2
HPER 202 Personal & Community Health .....	4
*HPER 227 First Aid .....	3

HPER 328 Instructors First Aid .....	3
*HPER 290 The Art of Sports Officiating .....	3
*HPER 350 Safety Education .....	4
*HPER 381 Administration of Intramurals .....	4
HPER 204 Drugs, Alcohol, & Tobacco .....	3
HPER 339 Football Officiating .....	3
HPER 340 Basketball Officiating .....	3
HPER 341 Baseball Officiating .....	3

### III. Major Content Area (79 hrs.)

A. Professional Recreation Core: (select 48 hrs.)	
HPER 250 Recreation Leadership .....	3
HPER 314 Camping .....	4
HPER 345 Camp Leadership .....	2
HPER 449 Admin. of Rec. ....	4
HPER 236 Field Experience .....	1-3
HPER 336 Field Experience .....	3
HPER 315 Outdoor Recreation & Education .....	4
HPER 251 Crafts for Recreational Programs .....	3
HPER 120 Intro. to Therapeutic Recreation Services .....	2
HPER 310 Program Planning & Facilities for Recreation .....	5
HPER 403 History of Recreation .....	3
HPER 440 Internship .....	16
B. Professional Education Course: (required)	
EDM 480 Intro. to Educational Media .....	4
*Denotes required course	
C. Recreation Tool Courses: (select 18 hrs.)	
**HPER 240 Taxidermy I .....	2
**HPER 241 Taxidermy II .....	2
INDT 109 Crafts .....	2
ART (photo) 191 Basic Photography .....	4
ART 360 Elem. Teaching .....	6
HETC 110 Clothing Construction .....	2
THAR 240 Intro. to Children's Drama .....	2
THAR 301 Play Produc .....	4
THAR 340 Dramatic Lit. for Children .....	3
THAR 441 Creative Dramatics .....	3
MUS 120 Intro. to Music Literature .....	2
MUS 160 Music Fundamentals .....	3
MUS 161 Music for the Classroom .....	3
ART 101 Two-Dimensional Design .....	4
ART 102 Three-Dimensional Design .....	4
ART 105 Intro. to Painting .....	4
ART 115 Intro. to Ceramics .....	4
ART 128 Basic Drawing .....	4
ART 131 Intro. to Sculpture .....	4
ART 141 Intro. to Printmaking .....	4
ART 151 Intro. to Graphic Design .....	4
INDT 391 Elem. Ind Arts .....	2
HPER 270 Teaching of Physical Education .....	3
HPER 274 Sports & Game Skills for Elementary School Children .....	3
D. Physical Education Activities (Select 9 hrs.)	

### IV. Primary Areas of Concentration: (select 35 hrs. from areas A, B, C, D, or E)

\*\*Outdoor education students must select either HPER 240 or 241

**A. Recreation Therapy.** This option focuses upon planning, conducting, and administering recreation programs serving the ill, disabled, aging, and disadvantaged in both institutional and community settings. Students may qualify for positions serving disabilities in the area of emotional illness, mental retardation, physically handicapped and aging. Career opportunities are also increasing rapidly in penal and correctional settings and community programs serving the culturally/socially disadvantaged.

ZOO 301 Human Anat .....	6
HPER 302 Kinesiology .....	4
PSY 131 Psych. of Adjustment (PSY 101) .....	4
PSY 332 Abnormal Psych. (9 hrs. in psych.) .....	5
PSY 376 Psych. of Except. Children .....	5
EDSP 271 Intro. to Educ. of the Except. Child .....	3
EDSP 378 Sheltered Workshop Organization .....	2

*HPER 376 Prin. & Prac. of Therapeutic Recreation .....	3
HPER 470 Program Planning for Handicapped & Confined .....	3
HPER 460 Understanding Play .....	3
HPER 485 Perceptual Motor Develop. of Children .....	3
EDCI 200 Studies of Children .....	4
HECF 160 Intro. to Child Develop. ....	4
SOC 361 Deviant Behavior .....	4
SOC 363 Juvenile Delinquency .....	4
EDSP 400 Intro. to Emotionally Disturbed .....	3
EDSP 477 Prob. of Adjustment for Handicapped .....	3
HPER 333 Adaptive Physical Educ. ....	3
HPER 433 Physical Educ. for the Mentally Retarded .....	3

**B. Outdoor Education, Interpretive Services, and Camping.** This option focuses upon planning and administering outdoor recreation programs, with special emphasis available for school-oriented programs and resident camping. Students may qualify for positions as interpretive naturalists, outdoor education resource persons, camp directors, visitor information center directors, or supervisors of outdoor recreation programs in federal, state and local agencies.

GEOG 235 Geog. of Resource Mgt. (Conservation) .....	3
GEOG 201 Environ. & Man. OR	
GEOL 201 Man & Physical Environ. ....	4
GEOG 101 Elements of Physical Geog. ....	5
GEOL 101 Earth Structure .....	4
GEOL 102 Surface Proc. & Environ. ....	4
GEOL 291A Earth Materials .....	2
GEOL 291B Glaciers & Glaciation .....	2
GEOL 291D Volcanoes & Earthquakes .....	2
GEOL 291E Mineral Resources .....	2
GEOL 291F Fossils & Evolution .....	2
GEOL 291G Soils & Weathering .....	2
GEOL 291I Water & Pollution .....	2
GEOL 310 Rocks & Minerals .....	5
HPER 101 Orienteering .....	1
HPER 101L Adv. Orienteering .....	1
HPER 1014 Survival I .....	1
HPER 1015 Survival II .....	1
BOT 311 Biology & Human Affairs .....	3
BOT 102 Plant Biology .....	5
BOT 247 Vegetation in North America .....	3
*BOT 248 Trees & Shrubs .....	5
BOT 309 Taxonomy of Flowering Plants .....	5
BOT 425 Plant Autecology (or ZOOL 475) .....	5
BOT 426 Plant Synecology .....	5
ZOOL 203 Prin. of Zool. ....	6
ZOOL 269D Biology of Natural Waters .....	3
*ZOOL 271 Ornithology (field) .....	2
ZOOL 435 Entomology .....	6
ZOOL 475 Animal Ecology (or BOT 425) .....	3
ZOOL 476 Animal Ecology Lab .....	2
ASTR 100 Survey of Astronomy .....	3
ASTR 320 Elements of Navigation .....	2
EDPL 275 Learn. Proc. in Classroom .....	5
EDUC 340 Tchng. Science .....	4

**C. Recreational Management.** This option focuses upon the administration of recreation programs and will qualify students for positions with public recreation, voluntary agencies, resident institutions, and camp administration.

*ACCT 101 Managerial (nonmajors) .....	4
BUSL 255 Law & Society .....	4
BUSL 465 Law of Sports .....	4
CS 150 Computer Science Survey .....	3
ECON 101 Prin. of Economics .....	4
ECON 318 Economics of Sports .....	4
FIN 325 Managerial Finance .....	4
HPER 311 Expedition Mgt .....	3
JOUR 105 Intro. to Mass Comm. (or INCO 105 or R TV 105) .....	4
JOUR 221 Graphics of Comm .....	5
JOUR 231 News Wrtng. & Rptng (prereq. in dept.) .....	4

JOUR 250 Advert. Prin.	5
JOUR 471 Pub. Relations Prin.	5
MGT 200 Intro. to Mgt.	4
MGT 325 Comm. Behavior in Mod. Organization	4
MGT 420 Admin. of Personnel	4
MGT 425 Labor Relations	4
MGT 426 Manpower Mgt.	4
MGT 428 Nonindustrial Labor Relations	4
MGT 440 Organization Behavior-Leadership & Motivation	4
MGT 450 Managing Health Care Organ.	4
MKT 301 Mkt. Prin.	4

Those interested in camp administration should select one of the following courses:

HEC 120 Meal Mgt.	3
HEC 128 Intro. to Nutrition	4
HEC 222 Food Science & Prin.	4

**D. Special Interests.** This option focuses upon individualized programs designed to meet unique career goals and will qualify students for extremely specialized positions in recreation and recreation-related fields.

The Special Interests Concentration consists of the student selecting, in consultation with an assigned advisor from the recreation studies faculty, a 35-hour course of study directed toward his or her particular goals.

The student's course of study in the special interests concentration must be approved by the recreation studies program faculty and the coordinator for recreation studies. A copy of the student's program will be filed in the office of the coordinator for recreation studies.

This option (concentration) will not be available to any student who can not meet his or her career goals through one of the existing courses of study or to any student who is not a declared recreation major.

**E. Wilderness Skills.** This option focuses upon planning, conducting, and administering high adventure and wilderness skills programs. Students may qualify for positions with various wilderness and survival schools, outdoor leadership programs, expedition outfitters, and commercial enterprises in high adventure activities. Career opportunities are also increasing rapidly in programs involving juvenile offenders in both public and private agencies.

#### Required Courses

HPER 101I Orienteering	1
HPER 101L Adv. Orienteering	1
HPER 311 Expedition Mgt.	3
SW 101 Intro. to Social Welfare & Social Work	3
SOC 361 Deviant Behavior	4
SOC 363 Juvenile Delinquency	4

#### Wilderness Skills Activity Courses (select 12 from the following)

HPER 101M Skiing I	1
HPER 1014 Intro. to Survival I	1
HPER 1015 Survival II	1
HPER 1020 Whitewater Rafting	1
HPER 1023 Intern. Snow Skiing	1
HPER 1024 Hunting	1
HPER 1026 Trap Shooting	1
HPER 1027 Rappelling	1
HPER 1028 Tech. Climbing	1
HPER 1029 Adv. Wilderness Survival	1
HPER 1030 Cross-Country Skiing	1
HPER 1031 Backpacking	1
HPER 1032 Canoeing	1
HPER 1033 Kayaking	1
HPER 1034 Ropes Course	1
HPER 1035 Rescue Techniques	1
HPER 1036 Primitive Construction	1

#### Elective Courses (select 7 hours from the following)

GEOL 201 Man & Phys. Environ.	4
GEOL 291A Earth Structure	2
GEOL 291B Glaciers & Glaciation	2
GEOL 291G Soils & Weathering	2
GEOL 291L Water & Pollution	2
GEOL 310 Rocks & Minerals	5
GEOL 330 Prin. of Geomorphology	5
GEOL 407 Topographic Map & Aerial Photo Interp.	4
BOT 247 Vegetation of North America	4
BOT 248 Trees & Shrubs	5
BOT 309 Ohio Flora	5
SOC 201 Contemp. Social Prob.	4
SOC 210 Intro. to Social Psych.	4
SOC 364 Penology	4

#### Athletic Training Professional Program

Available to students majoring in health education, physical education, and community health services. Selected admissions through the Athletic Training Department. Any student participating in this program must complete 2,400 hours of clinical experience during the four-year program. Successful completion of the program leads to NATA certification.

Some of the courses are open to students not enrolled in the Athletic Training Professional Program. See instructor for permission to enroll.

#### Required Courses

ZOOL 301 Human Anatomy	6
ZOOL 345 Human Physiology	4
HPER 302 Kinesiology	4
HPER 414 Physiology of Exercise	4
HPER 415 Physiology of Exercise (lab)	2
HEFN 128 Intro to Nutrition	4
HPER 227 First Aid	3
HPER 331 Therapeutic Modalities	3
HPER 329 Intro to Athletic Training	2
HPER 429A Advanced Athletic Training I	4
HPER 410B Advanced Athletic Training II	4
HPER 421 Athletic Training Practicum	2

#### School Nurse Program

This program is designed to provide school nurse certification to registered nurses. The following courses meet the criteria for certification as established by the State of Ohio.

PSY 131 Psychology of Adjustment or PSY 332 Abnormal Psychology	5
HPER 370 Community Health	4
HPER 495 School Health Program	5
EDCI 275 Learning Processes in the Classroom or PSY 275 Educational Psychology	5
EDSE 480 School and Society or EDEL 460 Child and the Curriculum	3-4
EDPL 461-463 Student Teaching in Elementary and Secondary School	13
EDPL 465 Student Teaching Seminar	3

#### SCHOOL OF NURSING

Martha Raile, Associate Director

#### BACCALAUREATE PROGRAM

The School of Nursing endeavors to contribute to the larger and comprehensive mission of the University; it fosters a climate for career mobility and self development. It has as its central purpose the preparation of people for

the generalized practice of professional nursing with a supporting purpose of providing an educational base upon which graduate study for specialization as a clinician, teacher, administrator, or researcher might be built. Liberal learnings are progressively developed throughout the program and provide the base of the rationale for the nursing major.

The nursing program has been tailored to meet the region's needs for nurses with baccalaureate preparation. This program is designed for registered nurses and provides the upper two-year division courses leading the student to the bachelor of science in nursing degree. The program strives to prepare:

1. practitioners with the primary skills necessary to meet the complex health needs of a widening age range of clients;
2. practitioners with abilities to utilize research findings in planning, giving, and evaluating nursing care;
3. practitioners with decision-making ability;
4. practitioners with individual and family-centered community orientation;
5. practitioners with a sense of commitment to provide high-quality nursing care;
6. practitioners with skills in health teaching and health maintenance;
7. practitioners with a sense of accountability for their practice and with an understanding of their collegial relationships with others in providing interdisciplinary approaches to health care;
8. practitioners with skills and abilities to make critical nursing judgments based on the art and science of nursing; and finally,
9. practitioners with appropriate preparation who have been educated to be able to function independently with clients and families and interdependently with colleagues in nursing and other disciplines.

### Program Prerequisites

Each student's basic nursing program will be evaluated on its own merits by an officer of Ohio University. As in any higher-level program, certain stated prerequisites must be met by the applicant. The first of these is being graduated from a State Board of Nursing-approved program of nursing, either at the associate degree level or in a hospital diploma program. The second is holding current licensure in Ohio as a registered nurse. The other prerequisites to applying to the program are:

- One course in college English or communication (100-level English or INCO 101 or 103)\*
- Introduction to sociology (SOC 101)\*
- High school chemistry or one course in beginning chemistry or equivalent (CHEM 121)\*
- Introduction to psychology (PSY 101)\*
- Nutrition and diet therapy (content may be integrated within nursing courses) (HEFN 128)\*
- Psychology of growth and development or equivalent (PSY 173 or HECF 160 or EDEL 200)\*

\*The information given in parentheses are the Ohio University equivalents

### Program Admission Criteria

This program is limited to persons permitted to practice registered nursing under the Ohio Code. Other admission criteria include

1. Official transcripts from basic nursing program and any other post-secondary education institutions.
2. Letters of recommendation from an employer who can give reference to the qualities of applicant's practice; from an associate or friend who can give character reference; and from a physician who can give reference to applicant's health status.
3. Counseling interview with program director or designate.
4. Agrees to undertake National League for Nursing achievement tests administered at the beginning and end of the program at the student's expense.
5. Must hold liability insurance coverage.

### Curriculum

The increasing complexity of health care problems requires knowledgeable nurses capable of human concerns who are as competent in exercising their specific responsibilities in maintaining and promoting the health of families and communities as in fulfilling their unique functions in the care of the sick. These abilities are most likely to be found in the nurse who has studied the liberal learnings concomitantly with the health, nursing, and medical sciences.

The curriculum plan given below incorporates the modal patterns of student progression through the Ohio University curriculum leading to a B.S. degree in nursing. This plan is based on the outcome data of two carefully developed research studies of nursing and nursing education in southeastern Ohio. One of these studies reported the critical need for registered nurse education in the region, and the second reported the characteristics of baccalaureate programs in nursing throughout the nation. The design of the Ohio University baccalaureate nursing program is sensitive to the recommendations of these investigations. The curriculum has both nursing courses and liberal learnings and each of these components has required and elective courses.

The junior-level component of the program has the characteristic rigor and breadth of typical baccalaureate-level programs and provides comprehensive opportunities important to learning the theoretical and experiential aspects of nursing. The senior-level component provides for the application of the theoretical concepts and use of the nursing process in complex competency-building situations. The student is also given more opportunities to select courses in keeping with his or her particular interests and appreciations of nursing research and leadership.

The modal pattern includes the following important steps in the student's progression through the program. After initial review and individual appraisal of student files, admitted students are oriented to the expectations and structure of the program. Students may then enroll in selected courses from general education, nursing tool courses, and nursing core courses. Before advancing into competency-building nursing courses, all of the prerequisite nursing core courses must be successfully completed and interim competencies demonstrated. Once students are ready to progress into the competency-building courses, they again engage in a concentrated advising process and ultimately select one of the four possible interest patterns, taking the course pattern suggested by that choice. At the completion of 50 credits of nursing courses (distributed among nursing core, nursing tool, and nursing competency building categories) and 52



credits of general education, students who demonstrate the expected terminal competencies for the program are awarded the B.S. degree. The modal student has completed the program in 12 quarters, while the range of time of completion has extended from eight quarters minimum to a maximum of 20 quarters.

Illustrative schedules of the interest patterns categories are included in the *School of Nursing Student Handbook*.

The instructional program is competency-based, self-pacing, individualized, and personalized. Each clinical nursing subject provides increasing depth and application of the nursing process. The curriculum instills attitudes of value toward lifelong learning and provides for a logical transition from baccalaureate level to graduate study and/or to employment in the practice of nursing as a generalist.

### Required Courses in Nursing (30 qtr. hrs.)

#### Core courses in nursing

NBSP 300 Concepts of Health Care I	5
NBSP 320 Concepts of Health Care II	5
NBSP 330 Concepts of Health Care III	5
NBSP 340 Concepts of Health Care IV	5
NBSP 360 Concepts of Health Care V	5
NBSP 302 Concepts of Health Care VII	5

### Elective Courses in Nursing (select four: 20 qtr. hrs.)

#### Nursing Tool Electives

(Select at least one as appropriate to interest 5 pattern)

NBSP 456 Concepts of Health Care XI	5
NBSP 458 Concepts of Health Care XII	5
NBSP 390 Concepts of Health Care XIV	5
NBSP 464 Concepts of Health Care XV	5
NBSP 395 Concepts of Health Care XVII	5

#### Professional Competency Building Electives

(Interest Patterns — Select at least two)

Nursing Leadership Pattern	
*NBSP 452 Concepts of Health Care IX	5
NBSP 460 Concepts of Health Care XIII	5
NBSP 490 Concepts of Health Care XIX	5
Medical-Surgical Nursing Pattern	
*NBSP 380 Concepts of Health Care VI	5
NBSP 454 Concepts of Health Care X	5
NBSP 490 Concepts of Health Care XIX	5
Community Health Nursing Pattern	
*NBSP 466 Concepts of Health Care XVI	5
NBSP 470 Concepts of Health Care XVIII	5
NBSP 490 Concepts of Health Care XIX	5
Mental Health Nursing Pattern	
*NBSP 400 Concepts of Health Care VIII	5
NBSP 490 Concepts of Health Care XIX	5

\*Indicates courses required in each interest pattern array. Advisement and completion of all core courses required as prerequisites to selection of an interest pattern. (See *School of Nursing Student Handbook*)

### Required Courses in General Education

#### Statistics

PSY 121 Elem. Stat. for Behavioral Sciences	5
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#### Psychology (Select one)

PSY 315 Psych. of Human Differences	5
PSY 332 Abnormal Psych.	5
PSY 333 Psych. of Personality	5
PSY 336 Social Psych.	5

#### Sociology (Select one)

SOC 220 Intro. to Family Sociology	4
SOC 309 Sociology of Appalachia	4
SOC 329 Minority Group Relations	4
SOC 424 Urban Sociology	4
SOC 425 Rural Sociology	4

SOC 430 Sociology of Organizations	4
SOC 331 Clas & Soc. Ineq.	4
SOC 433 Sociology of Occupations & Professions	4
SOC 465 Social Change	4
AAS 482 Black Family	5

#### Human Relations (Select one)

EDGS 410 Human Relations	3
EDGS 440 Foundations in Group Dynamics	4
INCO 334 Intro. to Communication Theory	4
INCO 404 Prin. & Techniques of Interviewing	4
INCO 405 Prin. of Conf. Leadership	4
MGT 440 Organ. Behavior, Leadership & Motiv.	4

#### Communications (Select one)

ENG 305 Tech. Wrting.	4
ENG 308 Adv. Comp.	5
MGT 325 Comm. Behavior in Mod. Organization	4
JOUR 441/541 Magazine Feature Wrting.	4

#### Physiology and Pathology (Select two)

PSY 312 Physiological Psych.	5
ZOOL 384 Bioethical Problems in Biology & Medicine	5
ZOOL 390 Biology and the Future of Man	5
ZOOL 448 Cell Physiology	4
ZOOL 449 Cell Physiology Laboratory	4
ZOOL 450 Prin. of Endocrinology	4
ZOOL 451 Endocrinology Laboratory	4

The students, with advisement, will select approximately 25 additional credits from the general education sector. These courses will be upper-division courses from the 300-400 array and will support the student's major interest pattern in nursing.

### Substitution for Required Courses

A student who wishes to substitute another course for any prescribed in the curriculum or required for the degree for which the student is working must obtain permission from the Dean's Office, College of Health and Human Services, Scott Quad.

### Curriculum Plan

	Nursing	Liberal Learnings
<b>Ohio University upper-division</b>	Approximately 50% nursing courses 20 elec. hrs. 30 req. hrs.	Approximately 50% general education 25 elec. hrs. 27 req. hrs.
<b>Transfer Program lower-division</b>	50% weight to basic nursing courses	50% weight to general education and supportive courses
Transfer-in program (individually assessed)		Approx.
Prerequisites and suggested remedial or renewal learnings		90 cr.
Upper division in nursing		
required		30 cr.
elective		20 cr.
Upper division in liberal learnings		
required		27 cr.
elective		25 cr.
		192 cr.

Approximately 90 undergraduate credits will be derived by transfer of academic work earned in the student's basic nursing program. The bachelor of science degree in nursing is granted upon the completion of the program of 192 quarter hours with a point-hour ratio of 2.0 (C) on all hours attempted. A grade of C or better must be earned in

each course offered by the School of Nursing (NBSP series). If a grade of C is not earned, then the student must repeat the course. A student must file a Repeated Course Form with the dean's office in order to have the C or better grade counted for graduation and point-hour ratio.

### Advisement

Counseling and advisement are critical to the individualizing and concrete planning of each student's course schedule. Interest patterns in community nursing, critical care nursing, leadership, emotional and mental illness, and the like can be developed through the elective offerings.

Students interested in the courses leading to certification in school nursing will need to contact their advisors to insure meeting the standards set by the Ohio State Department of Education.

### Special Facilities

The program in nursing provides for a variety of activities and experiences across the broad grouping of health maintenance facilities as well as acute care centers. Students will have responsibilities related to selected families in the region and will develop skills related to collaborative and team approaches to their health care needs.

Complementing the learning resources of the University, the school uses selected facilities such as O'Bleness Memorial Hospital and the Athens Mental Health Center; Holzer Medical Center, Gallipolis; Veterans Administration facilities and Ross County Medical Center, Chillicothe; Guernsey Memorial Hospital, Cambridge; Barnesville Hospital; St. Joseph and Camden-Clark Hospitals, Parkersburg; physicians' offices; community health planning agencies; and public health centers for clinical laboratory learnings. These facilities are located in the immediate Athens area and the surrounding extended Ohio University campus areas. Since each student is responsible for his or her own transportation to clinical facilities, a car is essential. In addition, the University reserves the right to institute a clinical laboratory fee. Students will need to purchase assessment tools, including stethoscope and the like.

### Nursing Workshop Series

NBSP 491 (A,B,C,D or E) Concepts of Health Care XX 1-3 credits

The School of Nursing offers opportunities for continuing education to registered nurses\* through its Workshop Series. There are five major workshop purposes.

Each workshop offering follows one of the general outlines below:

- NBSP 491 A Topics focusing on expanded role of the nurse
- NBSP 491 B Topics focusing on emotional-mental health/illness concepts
- NBSP 491 C Topics on clinical nursing practices
- NBSP 491 D Topics on leadership concepts
- NBSP 491 E Topics on health care trends and issues of significance to nurses in the region

\*Matriculated students in the School of Nursing may apply a maximum of 5 workshop credits toward the liberal learning elective component in the B.S.N. Program.

## CENTER FOR HUMAN DEVELOPMENT

Marilyn Perrin, *Administrator*

As one of 49 university-affiliated centers in the United States, the Ohio University-Affiliated Center for Human Development is an interdisciplinary center which provides opportunities for students for training, service, technical assistance, and research related to individuals with developmental disabilities and special needs.

Students in affiliated colleges and departments within Ohio University may gain practical, clinical experience in structured observation, practicum hands-on opportunities in schools, agencies, and homes with which the center has associations and internships. The interfacing of many disciplines within Ohio University, such as special education, guidance/counseling, nursing, early childhood education, social work, psychology, speech and hearing, and medicine, at the Center for Human Development adds an essential interdisciplinary extension of a student's instruction and helps to overcome the fragmentation caused by specialization.

Because of the center's many outreach programs in southeastern Ohio communities, students have a unique opportunity to gain early practical work-related experience in a variety of settings. On Ohio University's campus at the Convocation Center, at Satellite Assessment Centers located in Perry and Gallia counties, in Satellite Treatment Clinics in Meigs, Jackson, Gallia, and Vinton counties, and at the Gallipolis Developmental Center in Gallipolis, they may observe and participate in interdisciplinary/transdisciplinary comprehensive evaluations, prescriptive programming, supervised intervention, family counseling, and follow-along services for developmentally disabled individuals ranging from infants to senior citizens.

In addition to credit which may be given for practicum work and internships, students may often gain credit for the preservice and inservice workshops sponsored by the center.

The center fiscally monitors the Athens Day Living Center for elderly and handicapped adults where students have the opportunity for interaction and supervised intervention in the newly developing field of gerontology.

Also under the center's umbrella are the Genetics Clinic which provides birth defects consultation, screening, and follow-up counseling and the Pediatric-Psychiatry Clinic providing physician consultation of physical management for developmentally disabled clients.

The staff at the Center for Human Development includes special educators, psychologists, physical therapists, occupational therapists, social workers, family counselors, speech and language specialists, a behavior management specialist, and medical personnel.

The Center for Human Development is a full member of the American Association of University-Affiliated Programs for the Developmentally Disabled, and the Ohio Consortium of Developmental Disorders.

# Honors Tutorial College

Margaret F. Cohn, *Director*

The Honors Tutorial College attempts to provide the most challenging education possible both to the academically gifted and to the creative student. It does so through the Tutorial Program and the Departmental Honors Program. The degree in the Tutorial Program is a bachelor of arts or a bachelor of science in \_\_\_\_ (major area of study).

## THE TUTORIAL PROGRAM

The program is modeled upon the tutorial system used at Oxford and Cambridge universities. Although some colleges and universities have adopted particular features of this system, at this time in the United States, only Ohio University offers a degree-granting program which incorporates all of the essential features of the tutorial system.

### Selective Studies

Tutorial studies are not remedial. On the contrary, the program is open only to highly qualified and highly motivated students who are already committed to one of the areas of study listed below.

### Participating Departments

Twenty-two areas currently participate in the program. *Tutorial studies are available only for students majoring in one of these areas:* botany, chemistry, economics, engineering physics, English, French, geography, hearing and speech sciences, history, interpersonal communications, journalism, management, mathematics, philosophy, physics, political science, psychology, radio-television, sociology, Spanish, theater, and zoology. Each has a well-established graduate program which assures excellent faculty, laboratory, and library facilities.

Students preparing for careers in law may also major in any one of these areas, although the departments of economics, history, philosophy, and political science have designed special prelaw programs.

*A detailed description of each departmental program is available upon request.*

## A One-to-One Learning Experience

When a student has chosen an area, a director of studies is assigned to coordinate the program. In addition to mapping out a curriculum, the director of studies will assign individual tutors as the student progresses through the various subdivisions of the major area of concentration. The tutors are full-time faculty members who have voluntarily committed themselves to being tutors. In the tutorial the student meets individually with his or her tutor to report on the weekly assignment.

### Individual Programs

Each student together with the director of studies designs a program best suited to the student's needs. However, the program is a highly supervised and structured one rather than an unstructured series of independent study projects.

### Admission

Excellent academic credentials are required of each applicant. Standardized test scores, high school record, and recommendations from teachers and counselors are used to select participants in the program. All students are required to fill out the standard application for admission to Ohio University. In addition, the student must be accepted by the department of his or her choice. Each department accepts between five and ten students each year, so whether or not a qualified student is accepted depends upon the number of qualified applicants to the department in that year.

### Goals of the Program

To provide an educational mode which enhances the learning process by:

- Replacing lecturing in the student's major by tutorial.
- Permitting each student, under guidance, to proceed at an optimum pace.
- Exposing the student, in a one-to-one relationship, to an accomplished scholar in a field of study.

- Establishing a living/learning environment in a special residence hall.

To provide qualified students with an alternative to traditional curricular requirements common to most undergraduate programs.

To provide the career-oriented student with the best possible preparation for later graduate work in the shortest possible time.

### Examinations

For the tutorial system to work at its best, the student/tutor relationship must be free from the pressures of examinations. Therefore, examinations will be prepared and graded by a departmental committee. Because of the close relationship between student and tutor, the tutor will know long before an examination is scheduled whether or not the student will be able to pass it. Examinations are given only when the tutor feels that the student has mastered the material.

The purpose of giving comprehensive examinations is to force the student to do, over a period of a year, what he or she has had to do on a smaller scale for the weekly tutorial, namely, to assimilate knowledge and to consider it again in the light of other knowledge and experience. The existence of comprehensive examinations does not prohibit the tutor, at any time, from testing a student's grasp of ideas, or devising some basis upon which to evaluate a student's progress. Indeed, each tutor will be expected to submit a quarterly evaluation which will permit us to discover problems soon enough to minimize their impact on the student's further education.

### Competency-Based Degree Requirements

One of the essential features of the tutorial program is that it substitutes measurement of competency for a mere accumulation of credit hours or residence requirements. There is no fixed number of class hours required for graduation and no specific distribution requirement by the college. In order to graduate, a student must satisfy departmental requirements. This satisfaction consists of passing a set of comprehensive examinations and showing competency in required fields of collateral studies. Thus, it is quite possible for the student to complete his or her undergraduate work and receive a degree within three or, in exceptional cases, two years.

### Essentially a Three-Year Degree

The programs are designed so that in many cases a student will graduate at the end of three years, at which time preparation for further study would be at the level of many students entering their first year of graduate work.

### Residential Life

Ohio University presently requires that all freshmen and sophomores live in University residence halls. Students in the tutorial program will be invited to live in Hoover House, an intensive-study dormitory on the New South Green. However, they may choose to live in one of the other University residence halls.

## DEPARTMENTAL HONORS PROGRAM

The student must submit a satisfactory thesis in his or her major. The thesis may be expository, creative, or of a research nature, and may be written by registering for up to 15 hours of study under the departmental thesis advisor. In addition to the thesis, in order to graduate with departmental honors, a student must satisfy the general college requirements, the departmental major requirements, and any additional honors requirements of his or her specific department, such as g.p.a. and notable success in the major.

The student should discuss the project with a faculty member in his or her major department before enrolling in departmental honors. When the project is approved by the department, he or she should then apply for departmental honors on the forms available at the Honors College (35 Park Place).

It is the responsibility of each student to make sure that the Honors College is informed of the nature of the project by submitting a brief synopsis, and to inform the Honors College at least a month before graduation that he or she expects to graduate with "Honors in \_\_\_\_\_." This is necessary in order that proper recognition may be given at commencement exercises. The student should be sure to check the appropriate space on the card accompanying the application for graduation, indicating that he or she is completing an honors project.

## Center for International Studies

*Associate Provost for International Programs (to be named)*

Ohio University established the Center for International Studies in 1964 to provide students and citizens of the United States and other countries with opportunities to obtain knowledge about peoples and cultures of the world, particularly Africa, Asia, and Latin America, and about related international concerns. This endeavor is founded on the broad belief that an appreciation of different values and institutions increases understanding between peoples, enriches the lives of individuals, and assists all in forming opinions on issues which affect the growing world community.

The center coordinates teaching, research, and publications activities through programs related to three world regions — the African Studies Program, the Latin American Studies Program, the Southeast Asian Studies Program — and comparative and international topics. These programs assist in the development of courses and the expansion of library materials. They support visiting lecturers, film series, seminars, and colloquia throughout the year. More than 100 scholarly papers relating to Africa, Southeast Asia, and Latin America have appeared in the center's publication program. An East Asia Committee also functions with some modest support from the center.

### Major in International Studies

Through the College of Arts and Sciences the center offers an undergraduate major in international studies. See the *Courses of Instruction* section of this bulletin for program requirements.

### Undergraduate Certificate

The center offers certificates in African, Asian, and Latin American studies and in international affairs to benefit students who wish to add an international dimension to their majors as well as those interested in international careers or planning graduate work in area studies. The proper notification is placed on the student's official transcript upon completion of the requirements. Requirements for the certificate are listed under International Studies in the *Courses of Instruction* section of this catalog.

### Languages and Literatures

Ohio University offers courses in foreign languages relevant to Africa, Asia, and Latin America, including Hausa and Swahili (Africa), Chinese and Indonesian/Malaysian (Asia), and Spanish (Latin America). These languages fulfill the language requirements in the College of Arts and Sciences. A detailed description of languages and literatures is under the Foreign Languages and Literatures section in the *Courses of Instruction* section of this catalog.

### Courses

Three area interdisciplinary courses are available through the center. These are Africa (INST 113), Asia (INST 103), and Latin America (INST 121). These courses, which provide an introduction to the regions, satisfy social science requirements as well as certificate requirements. In addition, 65 faculty members in the various departments on campus teach over 150 courses each year that relate to African, Asian, and Latin American studies.

Below is a list of principal courses relevant to African Studies, Asian Studies, Latin American Studies, and International Affairs. Please check the complete course descriptions under the various departments.

#### Afro-American Studies

- 153 History of Colonialism
- 253 Comparative Neo-Colonialism
- 264 Comparative Study of Injustice
- 493 Politics of Change

#### Anthropology

- 270 Basic Concepts of Anthropology
- 348 Enculturation
- 350 Economic Anthropology
- 351 Political Anthropology
- 358 Women: A Cross-Cultural Survey
- 366 Cultures of the Americas
- 371 Ethnology
- 372 Cultures of the World
- 377 Peasant Communities
- 381 Cultures of Sub-Saharan Africa
- 385 Cultures of Southeast Asia

- 387 Cultures of Oceania
- 457 Anthropology of Religion
- 476 Culture, Contact & Change
- 478 Cultural Ecology

#### Art History

- 330 The Arts of the Orient
- 331 Pre-Columbian Art
- 332 African Art

#### Business Administration

- 485 Multi-National Business

#### Dance

- 250 Ethnic Dance of Non-Western Cultures
- 351-352-353 Dance Cultures of the World

#### Economics

- 214 Economics of War and Peace
- 340 International Economics
- 350 Economic Development
- 370 Comparative Economic Systems
- 441 International Economic Policy
- 455 African Economic Development
- 473 Economics of Southeast Asia
- 474 Economics of Latin America

#### Education, International Comparative

- 420 Comparative Cultures and Education
- 425A Education and Development in Africa
- 432 Perspectives in International Education

#### Finance

- 455 International Finance

#### Geography

- 121 Elements of Cultural Geography
- 130 Economic Geography
- 140 World Regional Geography — Eurasia
- 141 World Regional Geography — Oceania
- 142 World Regional Geography — Western Hemisphere
- 325 Principles of Political Geography
- 331 Geography of Agricultural Activity
- 345 Southeast Asia I
- 346 Southeast Asia II
- 351 Geography of Sub-Saharan Africa I
- 352 Geography of Sub-Saharan Africa II
- 355 Geography of South America
- 356 Geography of Middle America
- 490 Geographic Studies
- 490J Field Problems in Geography: Belize

#### History

- 316A History of U.S. Foreign Relations to 1898
- 316B History of U.S. Foreign Relations, 1898-1941
- 316C History of U.S. Foreign Relations since 1941
- 322 Latin America in 19th Century
- 323A Latin American Survey-Colonial Period
- 323B Latin American Survey-National Period
- 325 Inter-American Relations
- 326A Recent Latin America: Argentina, Brazil, and Mexico in the 19th and 20th Centuries
- 326B Recent Latin America: Andean Nations-19th and 20th Centuries
- 326C Recent Latin America: Central America and the Island Republics in the 20th Century
- 333 Oil, Energy, and International Diplomacy
- 335A Survey of Middle East History to 1800
- 335B Survey of Middle East History since 1800
- 336A North Africa in Modern Times
- 336B North Africa since 1914
- 338 History of West Africa
- 338A History of East Africa

- 341A Africa to the 17th Century
- 341B Africa from the 17th Century to the Late 19th Century
- 341C Africa from the 19th Century to Present Day
- 342 History of South Africa
- 344A History of Malaysia
- 344B Burma and Thailand in Modern Times
- 344C History of Vietnam
- 344D Chinese in Southeast Asia
- 345A Southeast Asia to 1750
- 345B Southeast Asia 1750-1942
- 345C Southeast Asia 1942 to Present
- 346A Traditional China
- 346B Modern China
- 348A Traditional Japan
- 348B Modern Japan
- 374B,C History of International Diplomacy
- 423 Studies in Latin American History, 1750-1880
- 427 Studies in Recent Latin American History
- 449 Studies in the History of East Asia in Modern Times

#### International Studies

- 103 Modern Asia
- 113 Africa
- 121 Interdisciplinary Survey of Latin America

#### Interpersonal Communications

- 448 Cross-Cultural Communications

#### Journalism

- 466 International Communications
- 467 Foreign Correspondence

#### Languages and Literatures

Language and literature courses are offered in several different departments. Courses offered which are relevant to International Studies include the following:

##### Afro-American Studies

- 113 Literature of Africa
- 211 Third World Literature
- 355 Literature of West Africa
- 357 Literature of the Caribbean
- 358 Literature of South Africa

##### English Language & Literature

- 306A,B,C Studies in Oriental Literature
- 461-2-3 Colloquium on African Literature

##### Foreign Languages

- 111-2-3 Elementary Chinese, Hausa, Indonesian/Malaysian, and Swahili
- 211-2-3 Intermediate Chinese, Hausa, Indonesian/Malaysian, and Swahili
- 311-2-3 Advanced Chinese, Hausa, Indonesian/Malaysian, and Swahili

##### Spanish

- 341-2-3 Advanced Conversation and Composition
- 349 Spanish-American Civilization and Culture
- 443 Survey of Spanish-American Literature
- 447 Themes from Latin American Prose
- 448 Contemporary Spanish-American Literature

#### Management

- 484 International Comparative Management

#### Philosophy

- 350 Philosophy of Culture
- 370 History of Religions: India
- 371 History of Religions: China and Japan
- 470 Indian Philosophy
- 471 Buddhist Philosophy
- 475 Chinese Philosophy

#### Political Science

- 230 Comparative Politics
- 250 International Relations

351	Current International Problems
414	Public Administration and Organizational Behavior
434	Government and Politics of Latin America
435	Revolution in Latin America
436	The Politics of Brazil
441	Government and Politics of Africa
445	Government and Politics of Japan
446	Government and Politics of China
447A,B	Government and Politics of Southeast Asia
448	Politics of Southeast Asia
452	Advanced International Relations
455	International Law

456	International Organization
461	Weak States in World Politics
463	U.S. and Africa
479	Latin American Political Thought

#### Sociology

305	Readings in Sociology
407	Social Process and Change in Southeast Asia
408	Latin American Society
414	Contemporary Social Movements
421	Comparative Studies of Family



## Office of Lifelong Learning

Joseph B. Tucker, *Associate Vice Provost*  
Z. Brent Fry, *Continuing Education*  
Andrew Chonko, *Workshops, Conferences, and Institutes*  
Richard Moffitt, *Independent Study*  
Elizabeth C. Menson, *Adult Learning Services*  
Curtis Johnson, *International Education*

The Office of Lifelong Learning is the administrative umbrella under which the following offices operate: Continuing Education; Workshops, Conferences, and Institutes; Adult Learning Services; Independent Study; and International Education. Its purpose is to provide lifelong learning opportunities beyond the regular channels of the University by utilizing the resources of the University in nontraditional ways.

Classes, independent study courses, workshops, and seminars are planned as requests and need indicate. Both credit and noncredit programs are offered and may or may not lead to a degree. Students seeking admission to a degree program must be admitted through regular Ohio University procedures. Participants in designated noncredit courses may be awarded continuing education units (CEUs).

Programs of special interest to audiences beyond the traditional credit-seeking student include the Senior Citizens Program and the Informal Community Learners Program. The Senior Citizens Program began fall quarter, 1973, and provides opportunity for Ohio residents who are 60 years of age or older to participate in many University courses at no cost to the participant.

The Informal Community Learners Program (ICLP) allows any resident of the Ohio University community who is not currently enrolled for credit to be admitted on a space-available basis to any undergraduate class offered by the University. University credit cannot be earned through ICLP or the Senior Citizens Program.

### CONTINUING EDUCATION

Continuing Education provides credit programs and courses at the graduate and undergraduate levels as well as noncredit courses in such diverse areas as community development, technical and professional updating, liberal adult education, and avocational or recreational programs. Even though the main thrust of the continuing education effort is toward meeting the needs of those individuals not already enrolled in the University, limited programming is offered to meet the regular students' needs.

Credit courses usually run according to the regular University academic quarter calendar, while noncredit programs run on a variable schedule for whatever number of sessions are necessary to accomplish the purpose. Class sessions are generally held in the evening, although some daytime programs are scheduled. Programs may be conducted either on campus or off campus at sites such as industrial plants or libraries.

The standard University tuition fee is charged for any credit coursework; each noncredit program has a fee determined primarily by direct costs; whenever possible, public service activities are conducted at no cost to the participants. Admission to the University is necessary only for credit courses; anyone may usually register for a noncredit course.

Each campus offers a noncredit real estate program which leads realtors and other enrollees to the Graduate Realtors' Institute (GRI) certificate. Credit courses leading to an associate degree in real estate are available at most campuses.

A cooperative arrangement with the American Management Association Extension Institute permits Ohio University to offer AMA programs as one of many noncredit opportunities to regional business and industry.

A continuing education director is located on the Athens campus and on each regional campus to explore and meet the needs of those specific communities and surrounding areas. Inquiries are welcome from any local business, industrial, or civic group interested in utilizing University expertise or seeking aid from other resources.

### ADULT LEARNING SERVICES

The Office of Adult Learning Services is responsible for the development of new programs and services for the adult learner. This office provides information and counseling for the person interested in the assessment of college-level learning from prior experience and attempts to link learners to various resources to meet their educational needs.

## INDEPENDENT STUDY

The Independent Study Program provides a number of flexible ways by means of which any person capable of pursuing college-level work can earn college credit and, in certain cases, degrees without some of the limitations imposed by the traditional university structure. Independent Study allows an individual to learn at the time, place, and rate suited to his or her own particular needs and provides the administrative format for the validation of nontraditional learning and life experience.

**Independent Study Courses** provide a highly structured method of independent study involving a tutorial relationship with a faculty member who guides the student's learning and monitors his or her progress. A detailed study guide prepared by the professor responsible for the course is sent to each student. This publication contains an overview of the course and directs the student's learning as the textbooks, cassette audio tapes, and other educational materials, devices, and techniques are used. The student submits written assignments which are evaluated and commented on by the professor. Supervised examinations at the student's location are generally required.

**Independent Study Projects** can often be arranged in undergraduate courses not currently available as independent study courses. These arrangements are made on an individual basis and are contingent upon the approval of the department in which the course is offered and the availability of a qualified faculty member willing to direct the project. This is an unstructured form of independent study which can be used most effectively by the experienced student. The student and the faculty member agree upon the conditions which must be fulfilled for credit to be awarded. The work may include a variety of readings, papers, projects, and examinations.

**Course Credit by Examination** represents the least structured method of obtaining college credit through the Independent Study Program. The participant receives at the time of enrollment a brief prospectus which describes the nature of the course; the textbooks and other materials required are listed and the nature of the supervised examination is explained. The student prepares for the examination without intermediate assistance from a faculty member. Letter grades and credit are awarded for performance on the examination.

**The External Student Program** is available to students who wish to earn either the associate or bachelor's degree primarily through the various independent study options or in combination with residential work. Services offered through this program include evaluation of previous college-level work and program planning.

**The College Level Examination Program (CLEP)** is especially useful for the adult who has had no previous college experience but whose work or life experience may be the basis for college credit. It is also useful for the

beginning college student who has had an enriched high school experience. The program is sponsored by the College Entrance Examination Board and the Independent Study Office serves as an open test center administering examinations by appointment on Saturday of the third week of each month. Detailed information is available in a special publication which can be supplied on request.

## WORKSHOPS, CONFERENCES, AND INSTITUTES

The major responsibility of the Workshops, Conferences, and Institutes Office is to help the various schools and departments within the University to plan, organize, and conduct noncredit programs and credit courses outside the regular University pattern. To accomplish this, the office makes available a coordinator who serves as a consultant to anyone wanting assistance in planning a conference, short course, or similar educational venture.

In addition, the office plans and develops its own programs and courses to meet the educational needs of the public at the local, state, and national levels. The administrative services of the Workshops, Conferences, and Institutes Office include budgeting, program promotion, requisitioning of supplies and materials, registration, arranging food service and housing, reserving facilities and equipment, and program evaluation.

It is also the responsibility of the Workshops, Conferences, and Institutes Office to serve as the University's contact with outside organizations, such as the English Handbell Ringers and the Rainbow Girls Assembly, which contract for use of the staff or facilities of the University for educational programs.

Approximately 200 workshops, conferences, and institutes are conducted on the Athens campus each year, including such diverse programs as the Saturday Morning Art Workshop for Children, Coal Preparation Conference, Research and Development Managers Institute, Ohio School of Banking, Credit Union Institute, band camps, annual publications and forensics workshops for high school students, summer short courses for teachers, and boys' and girls' sports clinics.

## INTERNATIONAL EDUCATION

The establishment of the Office of International Education underscores the University's commitment to make educational programs available to and share its resources with the international community. The International Education Office initiates, develops, and facilitates programs compatible with University goals and capabilities. These programs may be conducted on the Athens campus or, if academically appropriate, faculty are employed to teach in programs established at locations in foreign countries. The International Education Office works with foreign governments, businesses with international clientele, and the United States government.

## **Regional Campuses**

Ohio University has four campuses, other than the Athens campus, located in Belmont County, Chillicothe, Lancaster, and Zanesville; a branch at Ironton; and a resident credit center at Portsmouth.

The primary objective of the regional campuses is to offer a broad program at the freshman and sophomore levels. Each location has a full two-year curriculum in the arts and sciences, business administration, and education, with selected courses in specialized fields such as engineering and fine arts. Students are eligible to receive the associate in arts degree after completing an approved two-year program of study. Available at some locations are specialized two-year programs leading to the associate in applied business or associate in applied science, designed as preparation for specific career opportunities in the immediate area. However, to pursue a baccalaureate degree a student must relocate to the Athens campus or transfer to another institution after completing a two-year program. The resident credit center at Portsmouth offers only upperlevel courses.

The admission policies for the regional campuses are the same as those of the Athens campus. Ohio high school graduating seniors who can commute from home to one of the regional campuses will be admitted as regular full-time or special part-time students. This decision is based on the high school transcript, Scholastic Aptitude Test, or the American College Test (preferred). The regional campuses have no residence halls.

## University College

Samuel R. Crawl, *Acting Dean*  
Associate Dean, to be named  
William L. Allen, *Assistant Dean*  
Larry Gage, *Assistant to the Dean*  
Richard K. Brackin, Robin Hutton, Mark Graham,  
Ernestine Montgomery, *Counselors*

University College is designed primarily to meet the needs of: (1) freshmen students who are exploring options leading to their educational and career goals; (2) special students; (3) associate degree students on the Athens campus and the four regional campuses; and (4) students seeking degrees through the Bachelor of General Studies Program or the Bachelor of Criminal Justice Program. The Criminal Justice Program is available to students who have earned associate degrees in related disciplines. The college staff manages orientation/advisement programs, such as Precollege, which assist students in reviewing their interests, planning academic programs, and adjusting to University life.

### UNIVERSITY COLLEGE PROGRAMS

#### Academic Advising and Counseling

No single activity of University College requires more time or is given a higher priority than advising and counseling. It is the responsibility of University College to inform students about the existing academic options and assist them in coming to decisions about how they can best use the University to facilitate their growth and development.

Entering students able to identify a preferred area of study are admitted directly to the degree college of their choice and are assigned faculty advisors representing their major department. Exploratory students, or those who wish to investigate several academic options prior to settling into a major, are admitted to University College. They, as well as associate degree, general studies, and special students, are assigned University College counselors. Exploratory students also are assigned an academic advisor who is a member of the teaching faculty. In addition, upperclassmen in all colleges may seek out counseling in University College when their questions touch on University-wide issues or University College programs.

Students in the University College are encouraged at entry to follow the requirements of degree programs. Students with tentative majors should refer to those requirements as outlined elsewhere in this catalog.

All freshman students, regardless of intended major or college of entry, are required to meet the general education requirement for freshmen. This includes proficiency in English composition and in basic quantitative skills.

To assist students in meeting these general education requirements, a series of placement examinations in reading, writing, and mathematics is required of all entering students. These examinations are administered each quarter as an integral part of the freshman orientation program.

During the freshman orientation program each quarter, with the placement test results as an aid, the University College staff will assist each student in selecting appropriate first quarter courses as well as the appropriate entry level for each course. A full-time schedule covered by the regular fee is between 12 and 20 quarter hours, with 16 being the average.

#### Precollege Freshman Program

Each year during July and August University College conducts an academic orientation program designed to acquaint freshmen and their parents with the programs of the University. Precollege results in a completed schedule and registration for each student. Students meet with undergraduate student counselors, University College professional counselors, and faculty advisors for assistance in planning their academic programs. Abbreviated orientation and advising programs are also held following Precollege and prior to the fall, winter, spring, and summer quarters for freshmen and transferring, reenrolling, relocating, and special students.

#### Freshman Interdisciplinary Courses

Each year University College sponsors a series of special interdisciplinary courses for freshmen. The courses

vary from year to year and are particularly appropriate for exploratory students. Courses are available for one to ten hours of credit.

### University Professors

To acknowledge outstanding undergraduate teaching, students of Ohio University each year select six University Professors. University Professors are full-time faculty who have demonstrated noteworthy teaching ability and an effective insight into educational processes.

Upon selection by the student University Professor Selection Committee and final appointment by the provost, each professor is granted a release from half his or her teaching duties and \$1000 for educational support or professional development. The professor uses this opportunity to teach at least two classes of his or her own choosing.

At the present time this program is limited to the main campus.

The University Professor Selection Committee consists of three student representatives from each undergraduate college appointed by the dean, plus an at-large representation.

The selection procedure has three parts:

1. Campus-wide nominations by ballot of outstanding full-time professors. This occurs early in the academic year.
2. Selection of the top nominees as a result of committee examination and class visitation during winter quarter.
3. Official appointment by the provost after consultation with the respective department chairmen and deans.

### Project CAP

Project CAP, or the College Adjustment Program, helps freshmen to adjust to college living and to succeed in their academic pursuits. Sponsored by the Academic Advancement Center in conjunction with the University College, Project CAP is available to freshmen whose high school grades and test scores suggest that they will have trouble adjusting to college-level work.

During their first quarter, freshmen in Project CAP are enrolled in three courses:

University College 110 "Effective Study Skills" . . . . .	2 credits
University College 112 "Speed Reading and Comprehension" . . . . .	2 credits
English 150 or 172 (depending on writing placement) . . . . .	4 or 5 credits

As the titles suggest, these courses concentrate on developing reading, writing, and study skills, skills which are absolutely necessary for college success. In addition to these courses, each student will choose other appropriate coursework in consultation with an advisor.

Project CAP, in addition to coursework, provides tutoring services throughout the first year. Free, private tutoring is available upon request in any academic course where extra help is desired.

Project CAP also offers counseling services to its students. The counseling staff assists students in dealing with adjustments to University life, career development, personal problems, and academic advising. Counselors maintain contact with the students through individual and small group sessions to prevent major problems from arising.

By combining skills courses, tutoring, and counseling assistance, Project CAP develops each student's competence and confidence. Questions may be directed to the Academic Advancement Center, Alden Library, Ohio University, Athens, Ohio, 614-594-6058.

## DEGREE PROGRAMS

### BACHELOR OF GENERAL STUDIES

The Bachelor of General Studies Program provides an opportunity for undergraduate students at Ohio University to design their own education. The student with high motivation, an exceptional background, or an unusual combination of talents and interests may find this degree program useful in attaining his or her goals. The program is geared toward four categories of students: (1) the student who is uncertain about career goals and wishes to utilize University resources for career exploration; (2) the student who desires to obtain an education motivated only by self-interest with no apparent intent to utilize the education for career purposes; (3) the student who knows what it is he or she wants to become but wishes to pursue a nontraditional approach in attaining that goal; and (4) the student who wants to combine the available University resources to create an entirely unique field of study not currently available in the curriculum offerings.

Students seeking to enter graduate school or one of the established professions may find that following the patterns suggested by the various disciplines may be more useful to them simply because the traditional degrees have greater visibility in the world and will more readily suggest the nature of their academic accomplishments to others. The Bachelor of General Studies Program is an acknowledgement that the existing degree programs, as varied as they are at Ohio University, cannot satisfy the legitimate educational requirements of all students. The General Studies Program provides the means by which individual students may, with the help of a University College counselor, determine the structure of their degree programs.

To enter the General Studies Program, the student must complete an application form which is available in the University College Office or at one of the regional campuses and have the completed application reviewed by a member of the University College staff. Final admission to the General Studies Program is granted only upon review of the application by the Bachelor of General Studies Review Sub-Committee which is composed of students, faculty, and administrators.

The student must meet the following criteria before submitting an application to the General Studies Program for consideration:

1. Current enrollment with regular student status;
2. Achievement of sophomore rank;
3. An overall 2.0 accumulative grade point average.

A student must meet the following requirements to graduate in the General Studies Program:

1. Earn 192 credit hours, at least 90 of which must be in junior-senior level courses (courses whose catalog numbers are at the 300 level or above as determined by the *Ohio University Bulletin*)
2. Earn a minimum of a 2.0 accumulative grade point average based on the 192 credit hours.

3. Complete no fewer than 45 credit hours of Ohio University credit (B.G.S. residence requirement) after being admitted to the General Studies Program, excluding any courses registered for prior to admission to the program. This includes any transfer, transient, Course Credit by Examination, Independent Study coursework, etc., for which the initial registration was completed prior to seeking admission to the general studies program.
4. Complete a minimum of 45 credit hours in a self-selected area of concentration which has been approved by the Bachelor of General Studies Review Sub-Committee. The 45-hour concentration area is designed by the student and may include either work from one department or a combination of coursework from two or more related departments. The courses included in the concentration area become course requirements for graduation subject to change only by prior permission from a University College counselor, and in some cases the Bachelor of General Studies Review Sub-Committee. The prospective general studies student is advised to work closely with a faculty or resource person in the field of interest to elicit suggestions for constructing an appropriate program of study.
5. Complete the general education requirement.
6. Satisfactorily complete the minimum of 48 credit hours of Ohio University coursework to satisfy the University residence requirement.

Applications may be submitted at any time during the quarter except in the case of seniors. Seniors must submit completed applications no later than the end of the fifth week of the quarter (end of two and one-half weeks during summer) to have current credit hours included as part of the total 45 credits needed after admission to the general studies program (subject to the exclusions listed in item 3 above, etc.). The deadlines to submit applications and have current credit hours included as part of the B.G.S. residence requirement are as follows:

Fall Quarter 1981-82

Deadline — October 16, 1981

Winter Quarter 1981-82

Deadline — February 6, 1982

Spring Quarter 1981-82

Deadline — May 1, 1982

Summer Quarter 1981-82

Deadlines — 1st Session — July 8, 1982

2nd Session — August 12, 1982

## BACHELOR OF CRIMINAL JUSTICE

The upperdivision Criminal Justice Program is designed specifically for students who have previously completed the associate degree program in an area related to criminal justice, such as law enforcement, corrections technology, or police administration. Students who hold such degrees from technical or community colleges or from a branch of Ohio University are able to enter directly into the Criminal Justice Program and complete the baccalaureate degree in two years.

This program offers students with technical education backgrounds the opportunity to broaden their exposure to liberal higher education, while acquiring the necessary specialization to qualify for careers in such fields as parole and probation, forensic science, adult and juvenile corrections, and police administration. Criminal justice stu-

dents may also prepare for law school or for further study in graduate or professional schools.

The flexible, interdisciplinary curriculum is composed of a broad range of courses from the social and behavioral sciences, humanities, natural sciences, and professional disciplines, all of which make a contribution to the complex field of criminal justice. Students also have the opportunity to design individualized programs of study to a significant degree with elective courses which relate to their career goals.

To enter the Criminal Justice Program, a student must complete an application form and submit a college transcript showing that he or she has completed an associate degree in an appropriate field. Upon entrance, the student will be assigned a faculty advisor who will assist in designing a program of study.

Degree requirements are as follows:

1. A total of 96 credit hours, beyond a minimum of 96 hours earned in an acceptable associate degree program.
2. Of the 96 hours in the criminal justice curriculum, 45 hours must be at the 300 level or above.
3. Within the total 192 hours, two courses in humanities and two courses in natural science and/or mathematics must be completed.
4. All students must complete no fewer than 12 courses from within the following core areas: Area I: Basic skills (Choose three courses, one each from A, B, and C) — (A) ENG 308, IT 370, MGT 325; (B) INCO 215, 404, 448; (C) PSY 121, QM 201, SOC 350, CS 201. Area II: Social and political systems (Choose three courses, one from A and two from B) — (A) AAS 254, 350, SOC 329; (B) SOC 362, 366, POLS 409, SW 493. Area III: Human Behavior (Choose three courses, no more than two from A or B. Do not take both SOC 210 and PSY 336) — (A) SW 380, AAS 482, PSY 333, PSY 336 or SOC 210, SOC 211; (B) PSY 332, SOC 361, 363, ZOOL 390. Area IV: Organizational skills and management (Choose three courses, no more than two from A or B) — (A) ACCT 101, MGT 300, POLS 412; (B) BUSL 255, MGT 440, SOC 430.

The remaining 35-51 hours beyond the core requirement will be chosen, in consultation with a faculty advisor, on the basis of the student's educational goals and career interests. For those students without prior professional experience in criminal justice, internship and field experience programs may be arranged.

## ASSOCIATE DEGREES

University College offers many programs of study leading to the associate degree for students who wish to obtain a two-year degree. The residence requirement for associate degrees is less than that for baccalaureate degrees and is detailed in the *Graduation Requirements* section of this bulletin. Application for the degree is made at the Office of Student Records at the time announced for all degree candidates and must be accompanied by a fee of \$7.50. Associate degree candidates are encouraged to participate in the annual commencement exercises with all other degree candidates.

There are four categories of associate degrees offered by Ohio University:

1. Associate in Arts/Associate in Science.
2. Associate in Individualized Studies

3. Associate in Applied Business
4. Associate in Applied Science.

The minimum requirement for an associate degree is the completion of 96 credits with a 2.0 accumulative average at graduation. Additional requirements for each degree follow this section.

Credit earned while enrolled in an Ohio University associate degree program will be applied toward an Ohio University baccalaureate degree program. The shift from an associate to a baccalaureate degree program may involve spending additional time in completing the four-year requirements for two reasons: 1) prerequisite courses may not have been completed and 2) technical courses will apply only as elective courses in most four-year degree programs.

Information about all associate degree programs is available through either the regional campuses or University College. Students who plan to pursue an associate degree program must consult with the director of the specific program and/or with a member of the counseling staff of the regional campus or University College.

The student's academic records must be in the college responsible for the degree at the time he or she applies for and receives the associate degree (College of Arts and Sciences for mental health technology, University College for all other two-year degrees). If a student plans to apply for and receive both an associate degree and a baccalaureate degree simultaneously, the student's academic records will reside in the college responsible for the baccalaureate degree. It is the student's responsibility to insure that he or she is enrolled in the appropriate college.

### **Associate Degree After a Baccalaureate Degree**

A student who has already earned a baccalaureate degree may pursue an associate in applied business degree or associate in applied science degree if the two-year degree is in a field other than that in which the baccalaureate degree was earned. It is also permissible for a student to pursue an associate in individualized studies degree after earning a baccalaureate degree depending on the rationale for doing so and the desired area of concentration. The associate in arts degree is not normally an appropriate degree objective for one who has already earned a baccalaureate degree. Requests for exceptions to this policy will be considered on an individual basis by the Associate Degree Sub-Committee.

**Associate in Applied Business Degree.** Available in accounting technology (Lancaster), general secretarial technology (Chillicothe and Lancaster campuses), and real estate technology (Chillicothe). See details under the specific program

**Associate in Applied Science Degree.** Available in aviation technology (Athens), electronics technology (Lancaster), human services technology (Chillicothe), industrial technology, with a design or manufacturing emphasis (Lancaster), law enforcement technology (Chillicothe), library media technology (Lancaster), mental health technology (Athens), nursing (Zanesville), radio-television, either technology or performance-production (Zanesville), and security-safety technology (Chillicothe). See details under specific programs

**Associate in Arts/Associate in Science Degrees.** Available on all campuses. Both degrees require a minimum of 96 credit hours. The A.A. degree must include 30 credits of arts and humanities (some credits in each area), 15 credits of social and/or behavioral sciences, and 15 credits of natural sciences and/or mathematics. The A.S. degree must include 30 credits of natural science and mathematics (some credits in each area), 15 credits of social and/or behavioral sciences, and 15 credits in arts and/or humanities. The remaining 36 credits may be of the student's own choosing. The only exceptions to these requirements are the specific curricula required for the four areas in home economics (Athens) which currently lead to the associate in arts degree: child development, foods and nutrition, interior design, and textiles and clothing.

**Associate in Individualized Studies Degree.** Available on the Athens, Chillicothe, Lancaster, and Zanesville campuses. A student who wishes to pursue a two-year program of study in a field other than those available through one of the other associate degree options may design his or her own program of study to meet particular goals through the self-designed Associate in Individualized Studies Degree Program.

To be admitted to the program, the student must complete an application available in the University College Office or at one of the regional campuses and schedule an interview with a member of the counseling staff of the regional campus or University College. Final admission to the program is granted only upon review of the application by the Associate Degree Sub-Committee.

Although there are no specific course or academic area requirements, the application must outline the student's intended course of study and it must include a proposed area of concentration.

The student must indicate two resource (advisory) faculty and/or staff members who have been consulted in the preparation of his or her program, one of whom must be from the student's area of concentration.

To submit an application for admission to the program, the student must be a currently enrolled *regular* student. Requirements for the associate in individualized studies degree are:

1. 96 quarter credits of work
2. 2.0 accumulative grade-point average
3. No fewer than 30 credits of work to be taken after admission to the program
4. Completion of an approved area of concentration of at least 30 hours.

Although applications may be submitted at any time during the quarter, the same deadlines established for the Bachelor of General Studies Program must be met to have current hours included as part of the 30 credits needed after admission to the Associate in Individualized Studies Degree Program.

### **Accounting Technology (A.A.B.)**

Ohio University-Lancaster offers a two-year program for accounting technicians leading to the associate in applied business degree. Requirements for the degree include 45 hours of accounting technology career courses, 23-25 hours in related basic courses, and 28-29 hours in general education courses. This program prepares the student to enter junior accountant positions in business, industry, or government.



Freshman		
ATCH 103 ..... 3	ATCH 104 ..... 3	ATCH 105 ..... 3
BA 101 ..... 4	GST 231 ..... 4	ATCH 106 ..... 3
ENG 172 ..... 5	ECON 101 ..... 4	MATH 117 ..... 4
GST 121 ..... 3	PSY 101 ..... 5	INCO 103 ..... 4
		Elective..... 3-5
15	16	17-19

Sophomore		
ATCH 203 ..... 4	ATCH 204 ..... 4	ATCH 206 ..... 4
CS 150 ..... 3	ATCH 205 ..... 4	ATCH 209 ..... 4
MKT 101 ..... 4	BUSL 255 ..... 4	GST 262 ..... 4
PSY 121 ..... 5	MGT 200 ..... 4	Elective..... 4-5
16	16	16-17

### Aviation Technology (A.A.S.)

The University College and the Aviation Department offer an associate in applied science degree in aviation technology. Completion of this program will prepare students for career opportunities in commercial aviation as F.A.A. certified pilots and air crew members as well as positions in related aerospace industries. Interested students should consult with the chairman of the Aviation Department, at the airport.

Freshman		
AVN 110 ..... 4	AVN 240 ..... 4	AVN 310 ..... 4
ECON 101 ..... 4	ENG 172 ..... 5	AVN 340 ..... 4
IT 220 ..... 3	INCO 101 ..... 3	INCO 103 ..... 4
Elective..... 4	ECON 102 ..... 4	PSC 101 ..... 4
15	16	16

Sophomore		
AVN 343 ..... 4	AVN 400 ..... 4	AVN 420 ..... 4
AVN 350 ..... 4	PSY 275 ..... 5	GEOG 311 ..... 5
PSY 101 ..... 5	MATH 113 ..... 5	AVN 440 ..... 4
GEOG 101 ..... 5	Elective..... 2	Elective..... 3
18	16	16

Course offerings may vary from quarter to quarter; therefore the sequence may be adjusted to fulfill the requirements.

### Business Management Technology (A.A.B.)

Ohio University-Chillicothe offers a two-year program of study in business management leading to the associate in applied business degree. Requirements for the degree include a minimum of 45 hours of BMT courses, 25 hours in related basic courses, and 28 hours in general education courses. This program prepares the student to assume paraprofessional positions in business, industry, and government.

Freshman		
BMT 110 ..... 4	ECON 102 ..... 4	BA 101 ..... 4
ECON 101 ..... 4	BMT 130 ..... 3	ATCH 105 ..... 3
ATCH 103 ..... 3	ATCH 104 ..... 3	PSY 101 ..... 5
ENG 172 ..... 5	INCO 103 ..... 4	BMT 150 ..... 3
16	BMT 140 ..... 4	GST 269 ..... 3
		18

Sophomore		
BUSL 255 ..... 4	BMT 230 ..... 3	BMT 270 ..... 3
CS 150 ..... 3	BMT 240 ..... 3	BMT 280 ..... 4
BMT 220 ..... 4	BMT 250 ..... 3	BMT 285 ..... 3
BMT 210 ..... 4	CS 201 ..... 5	BMT 275 ..... 4
BMT 203 ..... 3	BMT 260 ..... 4	INCO 105 ..... 4
18	18	18

### Child Development (A.A.)

University College and the School of Home Economics offer an associate in arts degree in child development. In-

terested students should consult with the director of home economics for additional information, including employment opportunities and continuation into the baccalaureate degree program.

### General Education Requirements

English .....	5
INCO 101 Fundamentals of Speech .....	
OR 103 Pub. Spkg. ....	3-4
SOC 101 Intro. to Sociology .....	5
PSY 101 Gen. Psych. ....	5
Science or humanities .....	10

### Technical Requirements

HECF 160 Intro. to Child Devel. ....	4
HECF 361 Prin. of Preschool Guid. ....	4
HECF 363 Creative Experiences with Young Children. ....	4
HECF 364 Premath & Science with Young Children. ....	4
HECF 462A-F Child Devel. & Family Life Modules (must select at least two) ....	4
HECF 371 Family Devel. ....	3
HECF 365 Infant Educ. ....	4
HECF 399 Jr. Practi.-Prof. Devel. ....	2-5
HEFN 232 Infant & Child Nutrition .....	4
OR HEFN 128 Introduction to Nutrition .....	4
HPER 227 First Aid .....	3
EDSP 371 Tchng. the Preschool Handicapped .....	3
EDEL 321 Children's Lit. ....	4

### Basic Related Requirements

MUS 262 Mus. in Early Childhood .....	3
HSS 108 Intro. to Speech Disorders .....	3
EDAV 480 Intro. to Educ. Media. ....	4
ART 360 Art for Elem. Teachers .....	6
SOC 327 Sociology of Educ. ....	4

### Electives

Enough for 96 total hours.

### Electronics Technology (A.A.S.)

Ohio University-Lancaster offers a two-year program for electronics technicians leading to the associate in applied science degree. Requirements for the degree include 50-52 hours of electronics technology career courses, 25 hours of related basic courses, and 23 hours of general education courses. This program prepares the student for positions in production or service industries, assisting the engineer or working as part of an engineering team to design, test, install, or maintain electronics systems.

Freshman		
ETCH 133 ..... 6	ETCH 134 ..... 5	ETCH 235 ..... 6
IT 101 ..... 3	Elective ..... 4	ETCH 135 ..... 5
IT 115 ..... 4	IT 102 ..... 3	PHYS 201 ..... 4
MATH 117 ..... 4	MATH 118 ..... 4	MATH 119 ..... 4
17	16	19

Sophomore		
ETCH 136 ..... 5	ETCH 234 ..... 6	ETCH 236 ..... 6
ETCH 233 ..... 6	PSY 101 ..... 5	BA 101 ..... 4
PHYS 202 ..... 4	ETCH 200 ..... 3	ENG 172 ..... 5
INCO 103 ..... 4	ETCH 250 ..... 3	ETCH 237 ..... 3
OR		
INCO 101 ..... 3		
18-19	17	18

## Foods and Nutrition (A.A.)

University College and the School of Home Economics offer an associate in arts degree in foods and nutrition. Interested students should consult with the director of home economics for additional information, including employment opportunities and continuation into the baccalaureate degree program.

### General Education Requirements

English .....	10
INCO 101 Fundamentals of Speech .....	
OR Pub. Spkng. ....	3
ECON 101 Principles .....	4
SOC 101 Intro. to Sociology .....	5
PSY 101 Gen. Psych. ....	5

### Technical Requirements

HEG 101 Professional Awareness .....	2
HEFN 222 Food Science & Principles .....	4
HEFN 128 Intro. to Nutrition .....	4
HEFN 120 Meal Mgt. ....	3
HEFN 437 Food Service Systems I .....	4
HEFN 334 Quantity Food Prod. ....	4
HEFN 321 Creative Cookery & Food Styling .....	3
HEFN 423 Food Preservation .....	3
HECE 390 Family Consumer Econ. ....	3
ACCT 101 Managerial .....	4
JOUR 250 Advert. Prin. ....	5
HECE 391 Equipment .....	4
BUSL 255 Law & Society. ....	4

### Basic Related Requirements

MGT 300 Mgt. ....	4
CHEM 121, 122, 123 Intro. to Chem., Chem. of Solutions, Environ. Chem. ....	13
MICR 211, 212 Environ. Microbiol. & Lab. ....	5

### Electives

Enough for 96 total hours.

## General Secretarial Technology (A.A.B.)

The Chillicothe and Lancaster campuses of Ohio University each offers a two-year program leading to an associate in applied business degree in general secretarial technology. This program prepares the student to enter top secretarial positions in business, industry, and the professions. The program incorporates the development of managerial skills.

### General Secretarial Technology

Freshman					
GST 111	3	GST 112	3	GST 113	3
GST 121	3	GST 122	3	GST 123	3
GST 131	3	GST 171G	3	GST 172G	3
ENG 172	5	Electives	4	GST 231	3
Electives	4	MGT 200	4	PSY 101	5
	18		17		17

Sophomore					
GST 241	3	GST 242	3	GST 269	3
ATCH 103	3	GST 249	3	GST 293	3
GST 262	4	GST 250	2	GST 299	2
BUSL 255	4	INCO 103	4	PSY 131	4
CS 150	3	ATCH 104	3	BA 101	4
	17	HPER 100G	1		17

## Legal Secretarial Technology

Freshman					
GST 111	3	GST 112	3	GST 113	3
GST 121	3	GST 122	4	GST 123	3
GST 131	3	GST 141L	2	GST 172L	3
ENG 172	5	GST 171L	3	GST 231	3
Electives	4	MGT 200	4	PSY 101	5
	18	HPER 227	3		17
			18		

Sophomore					
GST 241L	3	GST 242L	3	GST 269	3
ATCH 103	3	GST 249	3	GST 293	3
GST 262	4	GST 250	2	GST 299	2
BUSL 255	4	ATCH 104	3	BA 101	4
CS 150	3	INCO 103	4	PSY 131	5
	17		19		17

## Medical Secretarial Technology

Freshman					
GST 111	3	GST 112	3	GST 113	3
GST 121	3	GST 122	3	GST 123	3
GST 131	3	GST 141M	2	GST 172M	3
ENG 172	5	GST 171M	3	GST 231	3
Electives	4	MGT 200	4	PSY 101	5
	18	HPER 227	3		17
			18		

Sophomore					
GST 241M	3	GST 242M	3	GST 269	3
ATCH 103	3	GST 249	3	GST 293	3
GST 262	4	GST 250	2	GST 299	2
BUSL 255	4	ATCH 104	3	BA 101	4
CS 150	3	INCO 103	4	PSY 131	4
	17		15		16

## Human Services Technology (A.A.S.)

Ohio University-Chillicothe offers a two-year program leading to an associate in applied science degree in human services technology. The program prepares students for employment in agencies and institutions such as mental hospitals and clinics, correctional facilities, drug abuse programs, social services, and others providing human services. Students interested in admission to the program should contact the human services technology office at the Chillicothe campus.

Freshman					
HST 102	3	HST 101	5	HST 125	4
ENG 172	5	HST 110	3	HST 150	3
PSY 101	5	HST 290	4	HST 170	4
SOC 101	5	POLS 306	4	PSY 332	5
	18		16		16

Sophomore					
HST 151	4	HST 152	4	HST 200	3
HST 171	3	HST 220	2	HST 250	2
HST 210	2	HST 222	1	HST 255	1
HST 211	1	PSY 333	5	Electives	3-4
HST 275	3	ZOOL 101	3	Soc Sci Elect	4-5
HST 290	3	or 103	4-5	ZOOL 382	3
	16		16-17		16-18

## Industrial Technology (A.A.S.)

Ohio University-Lancaster offers a two-year program for industrial technicians leading to the associate in applied science degree. Students may choose an area of specialization by selecting either the design or manufacturing option. A total of 73-75 hours of courses is common to both options.

The design option, requiring an additional 29 hours, prepares the student for various design-related positions,

such as design technician, product design, engineering support, technical sales.

The manufacturing option requires an additional 23-25 hours and students are prepared for positions in production industries that may include technician, quality-control specialist, process-control specialist, maintenance supervisor, foreman, and supervisor.

Graduates may also choose to finish the four-year industrial technology degree in Athens.

Descriptions of the design technology (DTCH) and manufacturing technology (MTCH) courses are found at the end of the industrial technology course descriptions.

### Design Option

Freshman		
MATH 117 .....4	MATH 118 .....4	MATH 163A.....4
CHEM 121 .....4	CHEM 122 .....4	IT 121 .....3
IT 101 .....3	IT 102 .....3	DTCH 150 .....3
IT 115 .....4	IT 216 .....4	PHYS 201.....4
	INCO 103 .....4	MTCH 290 .....3
15	19	17
Sophomore		
DTCH 200 .....4	DTCH 210 .....4	DTCH 220 .....3
MTCH 220 .....3	DTCH 230 .....4	DTCH 250 .....4
ETCH 133.....5	DTCH 240 .....4	PSY 101 .....5
PHYS 202.....4	ENG 172T.....5	Hum./Soc.
Tech. El. ....3		Sci. Elec. ....3-5
19	17	15-17

### Manufacturing Option

Freshman		
MATH 117 .....4	MATH 118 .....4	MATH 163A.....4
CHEM 121 .....4	CHEM 122 .....4	IT 102 .....3
IT 101 .....3	IT 216 .....4	MTCH 261 .....3
IT 115 .....4	ENG 172T.....5	PHYS 201.....4
15	17	17
Sophomore		
IT 260 .....3	MTCH 263 .....3	MTCH 264 .....3
MTCH 220 .....3	MTCH 221 .....3	BA 101 .....4
ETCH 133.....5	MTCH 299 .....1-3	PSY 101 .....5
PHYS 202.....4	INCO 103 .....4	Tech. Elec. ....3
MTCH 262 .....3	Hum./Soc.	Sci. Elec. ....3-5
18	14-18	15

### Interior Design (A.A.)

University College and the School of Home Economics offer an associate in arts degree in interior design. Interested students should consult with the director of home economics for additional information, including employment opportunities and continuation into the baccalaureate degree program.

### General Education Requirements

English .....	10
INCO 103 Pub. Spkng.....	4
SOC 101 Intro. to Sociology .....	5
PSY 101 Gen. Psych.....	5
ECON 101 Principles .....	4

### Technical Requirements

HEID 180 Furnishing Today's Home.....	3
HEID 384 Family Housing .....	3
HEID 385 Home Furnishings Wkshp.....	4
HEID 480 Hist. of Furniture .....	3
HEID 481 Contemporary Design in Furnishings.....	3
HEID 482 Design in Home Accessories.....	3

HEID 299 Soph. Practi.-Prof. Assessment.....	2
HEID 280, 281, 282 Interior Design Studio I, II, III .....	15
IT 104, 105 Architectural Drawing.....	10

### Basic Related Requirements

HETC 315 Elem. Textiles.....	4
ART 101 2-Dimensional Design.....	4
MKT 301 Mkt. Prin. ....	4
Approved business electives.....	8

### Electives

Enough for 96 total hours.

### Law Enforcement Technology (A.A.S.)

Ohio University-Chillicothe offers a two-year program leading to an associate in applied science degree in law enforcement technology. This program prepares the student for employment in law enforcement by providing academic preparation for the contemporary officer. Career opportunities may be available in areas such as state highway patrol, local and county law enforcement agencies, corrections, juvenile authorities, and as probation officers. Upon completion of this program, interested students may continue in the Bachelor of Criminal Justice Program on the Athens campus. Students may also work toward the Athens-based four-year degree in forensic chemistry. Additional information is available from the Law Enforcement Technology Program director or the director of the Criminal Justice Program.

Freshman		
LET 100 .....3	LET 120 .....3	LET 140 .....3
LET 110 .....3	LET 130 .....3	LET 150 .....3
ENG 172.....5	HPEC 227.....3	HPEC 101B.....1
HPEM 100G.....1	HPEC 100Q.....1	PSY 101.....5
SOC 101.....5	INCO 101 .....3	SOC 201.....4
	POLS 102 .....4	
17	17	16
Sophomore		
LET 200 .....4	LET 230 .....3	LET 260 .....3
LET 210 .....3	LET 240 .....3	LET 270 .....3
LET 220 .....3	LET 250 .....3	LET 280 .....3
ART 191.....4	SOC 362.....4	POLS 320.....5
HPEM 100N.....1	EDGS 410.....3	HPER 100X.....1
	HPEM 100O.....1	
15	17	15

### Library Media Technology (A.A.S.)

Ohio University-Lancaster offers a two-year program in library media technology leading to an associate in applied science degree. This program prepares the student for employment as supportive staff in libraries between the professional librarian and the library clerk. Career opportunities may be available in elementary and secondary school libraries, public and academic libraries, business and industry, or government agencies.

Freshman		
LMTC 101.....3	LMTC 102.....4	LMTC 103.....4
INCO 101 .....3	LMTC 201.....4	LMTC 104.....4
PSY 101 .....5	ENG 171.....5	SOC 101.....5
Elective* .....4	Elective* .....4	Elective* .....4
15	17	17
Sophomore		
LMTC 202.....4	LMTC 203.....3	LMTC 205.....4
LMTC 204.....3	LMTC 207.....4	LMTC 209.....1-3

\*Social or Natural Science.

LMTC 206.....4	LMTC 208.....3	Eng.....5
Elective.....5	Electives.....7	MGT 200.....4
16	17	14-16

### Mental Health Technology (A.A.S.)

The College of Arts and Sciences through the Department of Social Work offers the associate in applied science degree in mental health technology. (See the College of Arts and Sciences Special Curricula Section in this bulletin.)

### Nursing (A.A.S.)

Ohio University-Zanesville offers a two-year nursing program. A student who completes the program will receive an associate in applied science degree in nursing and will be eligible to write the State Board Examination for Registered Nurse. The program is accredited by the National League for Nursing, and is open to men and women.

Freshman*		
NURS 101.....5	NURS 102.....5	NURS 103.....6
CHEM 121.....4	CHEM 123.....4	PSY 101.....5
ZOOL 101.....5	ZOOL 300.....6	MICR 310.....4
INCO 101.....3		ZOOL 345.....4
17	15	19

NURS 104.....6 Cr., to be taken during 1st summer session between 1st and 2nd years.

English 172 must be taken by the end of the summer quarter of the sophomore year of study.

Sophomore*		
NURS 201.....6	NURS 203.....6	NURS 205.....9
NURS 202.....6	NURS 204.....6	NURS 206C.....1
PSY 173.....5	SOC 101.....5	Elective.....2
NURS 206A.....1	NURS 206B.....1	
18	18	12

\*The sequence of the above courses may not be altered without permission

### Radio-Television (A.A.S.)

Ohio University-Zanesville offers a two-year program leading to an associate in applied science degree in either radio-television technology or radio-television performance-production. The associate degree in radio-television prepares the student for employment as a technician, or for positions in the production-performance areas of broadcasting. The two-year program in radio-television technology prepares the student to take the examination for a First Class FCC engineering license. The entire program is coordinated with learning experiences at the campus radio station WOUZ and area radio and television stations.

### Technology Sequence

Freshman			
JOUR 105.....4	R-TV 106.....4	R TV 214.....2	
R TV 211.....4	R-TV 290.....1	R TV 290.....1	
ENG 150 or.....4	INCO 101.....3	R TV 355.....4	
172.....4-5	SOC 101.....5	INCO 103.....4	
MATH 011.....4	MATH elective 4-5	POLS 101.....4	
or 113.....5			
16-18	17-18	15	
Sophomore			
R TV 208.....4	R TV 209A.....4	R TV 210.....4	
R TV 209.....4	R TV 290.....1	R TV 217.....4	
R TV 216.....4	PSY 101.....5	R TV 270.....4	

R-TV 290.....1	POLS 102.....4	R-TV 290.....1
ECON 101.....4	ENG 172 or.....5	Elective.....2-3
	200-level.....5	
17	19	15-16

### Performance-Production Sequence

Freshman		
JOUR 105.....4	R-TV 106.....4	R-TV 214.....2
R-TV 211.....4	R-TV 122.....4	R-TV 290.....1
INCO 101.....3	R-TV 290.....1	R-TV 355.....4
ENG 150.....4	POLS 101.....4	INCO 103.....4
or 172.....4-5	ENG 172, 280, or 308.....4-5	PSY 101.....5
15-16	17-18	16
Sophomore		
R-TV 208.....4	R-TV 230.....4	R-TV 217.....4
R-TV 216.....4	R-TV 290.....1	R-TV 270.....4
R-TV 290.....1	JOUR 351.....5	R-TV 290.....1
JOUR 231.....4	POLS 102 or.....2	JOUR 353.....2
ECON 101.....4	INCO 205.....4	POLS 102 or.....4
	POLS 306 or.....4-5	INCO 404.....4
17	18-19	15

### Real Estate Technology (A.A.B.)

Real estate courses are available on the Athens campus through the Office of Lifelong Learning and at the regional campuses through the Continuing Education offices. An associate in arts (A.A.B.) degree in real estate technology is available at the Chillicothe campus.

Ohio University-Chillicothe offers a two-year program leading to an associate in applied business degree in real estate technology. This program prepares the student for employment in real estate positions dealing with planning, appraisal, law, and management for the larger corporations, the small-businessman, and the homeowner. The program accommodates the State of Ohio bill which requires real estate salespersons and brokers to complete specialized courses.

Freshman		
RET 101.....4	RET 103.....4	RET 102.....4
ECON 101.....4	ECON 102.....4	BA 101.....4
MATH 110.....4	Eng.....5	PSY 101.....5
MGT 200.....4	POLS 101.....4	Elective.....4
16	17	17
Sophomore		
RET 201.....4	RET 202.....4	RET 207.....4
ACCT 101.....4	RET 204.....4	RET 211.....4
Elective*.....4	ACCT 102.....4	RET 221.....4
INCO 101.....3	BUSL 255.....4	MGT 325.....4
OR.....4		OR.....4
INCO 103.....4		BUSL 356.....4
15-16	16	16

\*Suggested electives: GEOG 130, HIST 211, 212, or 213, POLS 101, 102, SOC 101

### Security/Safety Technology (A.A.S.)

Ohio University-Chillicothe offers a two year degree program leading to an associate in applied science degree in security/safety technology. This program prepares the students for employment in security by providing academic preparation for the contemporary officer. Career opportunities may be available in areas such as corporate, industrial, retail, and government security.

The Security/Safety Technology Program is designed for in-service security officers and preservice men and women interested in careers in security. The goal of this

program is to further their knowledge of security so they are better prepared to obtain employment in this area and to help them qualify for promotion.

The security industry is currently one of the fastest growing industries in America. Security officers are now employed (and more will be employed in the future) by resorts, hospitals, airlines, government, retail companies, manufacturers, bus lines, trucking companies, housing authorities, colleges, public school systems, banks, and other industries.

#### Freshman

<i>Fall</i>	
SST 101 Intro. to Protective Systems .....	3
SOC 101 Intro. to Sociology .....	5
ENG 172 Contemporary Writing Skills .....	5
HPER 227C First Aid .....	3
SST 110 Phys. Security .....	3
	19
<i>Winter</i>	
LET 120 Constitutional, Criminal & Civil Law .....	3
INCO 101 Fundamentals of Speech .....	3
POLS 101 Am. National Government .....	4
LET 130 Interviewing & Rpt. Wrng. ....	3
SOC 362 Criminology .....	4
	17
<i>Spring</i>	
SST 120 Occupational Safety & Health .....	3
EDGS 410 Human Relations .....	3
LET 260 Criminal Investigation .....	3
PSY 101 Gen. Psych. ....	5
SST 290 Special Area Studies or Elective .....	3-4
	17-18

#### Sophomore

<i>Fall</i>	
LET 200 Proc., Rules & Tests of Evidence .....	4
ATCH 103 Fin. Acct. Proc. ....	3
BUSL 255 Business Law .....	4
SST 201 Fire Safety & Fire Codes .....	4
	15
<i>Winter</i>	
ATCH 104 Fin. Acct. Proc. ....	3
SST 210 Loss Prevention in Mod. Retailing .....	3
BA 101 Business & Its Environment .....	4
SST 220 Analys. of Security Needs Survey .....	3
CS 150 Comput. Science Survey .....	3
	16
<i>Spring</i>	
SST 230 Information & Data Security .....	3
SST 240 Security Admin. ....	3
SST 250 Current Problems in Security .....	3
SST 260 Analyt. Acct. ....	3
POLS 102 Issues in Am. Politics .....	4
	16

### Textiles and Clothing (A.A.)

University College and the School of Home Economics offer an associate in arts degree in textiles and clothing. Interested students should consult with the director of home economics for additional information, including employment opportunities and continuation into the baccalaureate degree program.

#### General Education Requirements

English .....	5
PSY 101 Gen. Psych. ....	5
SOC 101 Intro. to Sociology .....	5
INCO 103 Pub. Spkng. ....	4
CHEM 121, OR PSC 101L .....	4
Physical Science .....	5

### Technical Requirements

HEG 101 Professional Awareness .....	2
HETC 299 Sophomore Practicum .....	3
HETC 213 Design Analys.: Theory & Prin. ....	5
HETC 315 Elem. Textiles .....	4
HETC 117 Textiles & Dress & Environ. ....	3
HETC 313 Design Analys. Experimental .....	4
HECE 390 Family Consumer Econ. ....	4
HETC 407 Fashion Industries .....	4
HETC 318 Fashion Merchandising: Promotion .....	4
ART 101, 102, 2- & 3-Dimensional Design .....	8
Select 3 from the following:	
HECF 371 Family Devel. ....	3
HEID 180 Furnishing Today's Home .....	3
HECE 390 Consumer Economics .....	3
HEFN 325 Food & the Consumer .....	3

### Basic Related Requirements

JOUR 250 Advert. Prin. ....	5
ACCT 101 Managerial. ....	4
MKT 301 Mkt. Prin. ....	4
CS 150 Comput. Science Survey .....	3
ECON 101 Principles .....	4

### Electives

Enough for 96 total hours.

## RESERVE OFFICERS TRAINING CORPS

The rationale for reserve officer training stems from a statement by the founding fathers of this nation that we must "provide for the common defense." For young men and women who have the desire and talent to dedicate their time to the service of their country, there are many and varied rewards. Today, when science and technology are so much a part of the national defense, and the defense of this nation is so inextricably involved with world problems, our nation needs talented and well-trained officers in its military services. These services need the best managers, administrators, engineers, and scientists the nation's schools can produce: officers in command with wide ranges of knowledge and skill. The Reserve Officers Training Corps, in agreement with universities and colleges, is designed to produce these types of men and women for the nation.

The Air Force ROTC program at Ohio University is under the Aerospace Studies Department; the Army ROTC program is under the Military Science Program.

ROTC is divided into two phases: the basic course and the advanced course. The University offers a four-year program and a two-year program.

**Basic Course Requirements.** In general, any physically qualified student who is a U.S. citizen is eligible for enrollment in the basic course.

**Advance Course Requirements.** To be eligible for the advanced course a student must meet academic, physical, aptitude, and moral selection criteria, complete either the basic course on campus or the six-week summer camp/field training following the sophomore year, and enlist in the reserve of the appropriate service. Active duty commissions are not guaranteed upon successful completion of the program and students may be discharged from the reserve for reasons of academic failure, personal hardship, medical disqualification, or inaptitude.

**Scholarships.** Four-, three-, and two-year scholarships are available on a competitive basis for all qualified students participating in the program. These scholarships pay costs of tuition, fees, books, and laboratory expenses. In addition, recipients receive a subsistence allowance at the rate of \$100 per month for the period the scholarship is in effect.

**Subsistence Allowance.** All students in the advanced course receive subsistence allowances of \$100 per month.

**Summer Camp/Field Training Allowances.** All travel expenses, board, living quarters, and uniforms are furnished and students are paid while attending summer camp/field training.

**Uniforms and Equipment.** Textbooks, training equipment, and complete uniforms are loaned to all ROTC students without cost.

**Commissions.** A student who successfully completes the ROTC advanced course and the requirements for a baccalaureate degree will be qualified for the tender of a commission as a second lieutenant in the United States Army or the United States Air Force.

**Special Schooling.** The ROTC program encourages graduate study and may delay a call to active duty for up to four years for students enrolled in graduate-level study. Selected officers, after entrance on active duty, are sent to civilian universities or service technical institutes for graduate work leading to a master's degree or to a doctor's degree in specialized fields.

### **Aerospace Studies Program (Air Force ROTC)**

The aerospace studies program is designed to develop the attitudes and skills required of professional Air Force officers. Emphasis is on professional education. The basic goal is to provide to student cadets the background knowledge to become junior officers in the United States Air Force, while acquiring baccalaureate degrees in fields of their own choosing.

The curriculum during the first two years of the basic "General Military Course" (one credit hour per quarter) focuses on the doctrine, mission, and organization of the United States Air Force. It also includes studies of the development of air power and present concepts within the Air Force. Included within this framework are elements of national power, an overview of the Air Force, a study of democracy, and the actions of nations in their search for world peace. Concurrently with these academic subjects the student cadet will participate in leadership activities called "Leadership Lab." These will enable him or her to gain an insight into the dynamics of military leadership as well as to become familiar with the customs and courtesies of the military way of life. There is no service commitment during the first two years and it is an excellent way for a student to look at the Air Force as either a career or means of fulfilling a military obligation. The entire basic unit consists of six quarters of study and is entitled General Military Course or GMC.

The advanced curriculum, appropriately named the "Professional Officer Course" or POC, is specifically designed to prepare the student cadet for active duty as a

commissioned officer. The course curriculum in the senior year includes study of defense policy making, the military and professional soldier, strategy and arms control. It emphasizes professional responsibilities of Air Force officers within our democratic society and how the Air Force supports national goals. Studies are made of the military leadership and principles of management during the junior year. Through classroom methods of case studies, guest lecturers, and dialogue, the student cadet experiences a realistic simulation of problems facing the junior officers. The members of the advanced Professional Officer Course develop their leadership skills by working with the freshman and sophomore cadets; they improve their communicative abilities by writing and speaking; and they perform organizational projects similar to those accomplished by active duty Air Force officers. This advanced unit consists of six quarters of on-campus study and a summer quarter of field training which is a prerequisite of the course.

Interested and qualified cadets have the additional option of becoming flying officers. Identification for either pilot or navigator training will be made during the freshman (GMC) year, or prior to the beginning of the advanced (POC) course. Cadets qualified in the pilot category will receive 25 hours of flight instruction in their senior year which may qualify them for entry into the USAF flying training program after graduation and commissioning. This on-campus instruction will be provided at no cost to the student cadet as part of the Air Force ROTC program. Navigator qualified cadets receive no formal flight instruction until after graduation and commissioning when they will enter the USAF's Navigation Flying Training Program.

After commissioning, each new officer will be assigned to a position within the Air Force structure which best combines his or her academic major and desires with the needs of the Air Force. Past graduates have requested and been assigned to areas of air operations (both flyers and nonflyers); administration, biological, medical, physical, and social sciences; engineering; law; and research and development in aerospace technologies.

### **Military Science Program (Army ROTC)**

The purpose of the military science program is to develop leadership and management skills necessary for commissioning as a second lieutenant in the United States Army. Military science is an elective course of study open to all students enrolled in Ohio University. It is open to men and women. The curriculum of the program is designed for precommissioning. It does not provide technical training in specialized areas or military vocational training. The military science curriculum complements the student's normal coursework and provides a basis for progression to a commission in the United States Army.

There are two programs available to the student: The traditional four-year program which parallels a normal four-year college program, and the two-year program which permits a student to enter late in the sophomore year. A description of these two programs is in the *Courses of Instruction* section of this bulletin.

The first two years of the four-year program are voluntary and incur no military service obligation for the student. During the final two years the student enters into a contract which obligates him or her to complete the program, accept a commission as an officer, and serve some period on active duty.

Students entering the two-year program must attend an initial six-week summer camp. This camp qualifies them for immediate entry into the advanced course in their junior year. Attendance at camp is voluntary and incurs no military service obligation.

Graduates of both programs are required to serve on active duty for three years or they may request reserve forces duty for three to six months followed by seven and one-half years of service with an active National Guard or Reserve unit.

In addition to the normal credit-granting courses, the department conducts a periodic leadership laboratory in which all advanced students take part in planning and conducting an adventure-type outdoor training activity. Examples of such activities are rappelling, survival swimming, marksmanship, visit to a military installation, physical training, canoeing, backpacking, and orienteering. Usually one or two of these activities are scheduled for a full day each quarter.

The department also sponsors several extracurricular clubs or activity groups which are organized by the cadets with the aid of a department faculty advisor. Examples of these activities are skydiving, orienteering, color guard, rifle team, Pershing Rifles honorary, drill team, and Rangers. All advanced cadets are required to join at least one organization.

Field uniforms are issued to freshmen and sophomores. The Army dress green uniform is issued to upper-

classmen. Wearing of the uniform is required for leadership laboratory only.

Financial assistance is available to ROTC cadets. All advanced course students receive \$100 per month subsistence allowance for each ten-month period of their junior and senior years. All summer camp expenses are paid by the Army. This includes meals, housing, uniforms. In addition, each cadet is paid approximately \$500 in military pay for camp attendance. This applies to both the Basic Camp, required of all two-year program cadets, and the Advanced Camp, required of all advanced course cadets between the junior and senior years of the program.

Scholarships are available. High school seniors may compete for the Army four-year scholarship. Cadets already enrolled may compete for the three-, two-, or one-year scholarship. All scholarships pay full tuition (in or out of state), fees, and book costs.

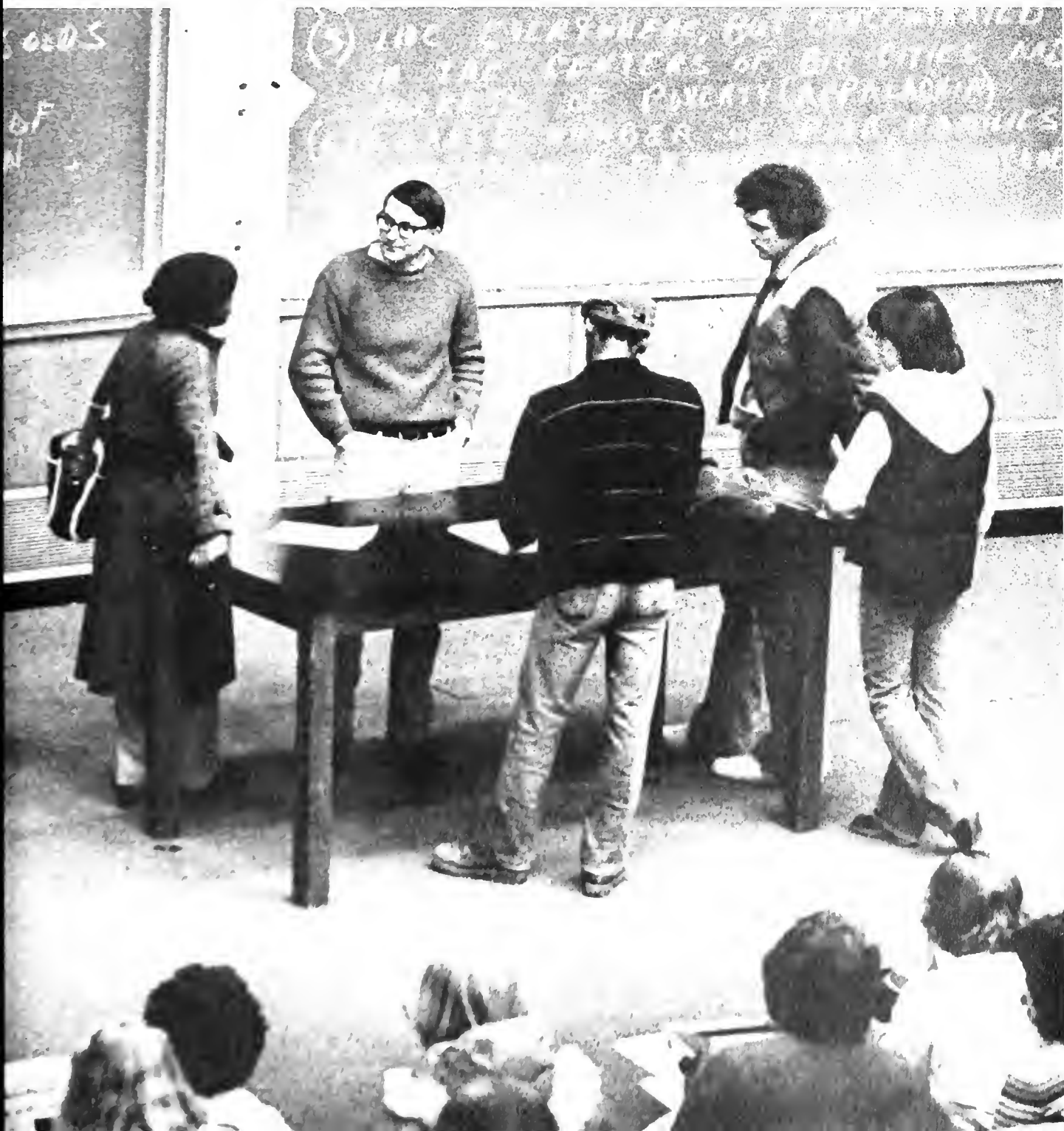
Advanced course cadets are required to attend a six-week summer camp between the junior and senior year. Selected cadets may also attend the three-week U.S. Army Airborne Training School at Fort Benning, Georgia, in addition to attending Advanced Camp.

In order to participate in the military science program, a student must take a scheduled credit course in military science, attend all scheduled leadership laboratories, and participate actively in at least one department-sponsored extracurricular activity.





## Courses of Instruction



## Courses of Instruction

**CATALOG NUMBERS** — The catalog number indicates the student classification for which the course is primarily intended:

- 001-099 Noncredit courses
- 100-299 Undergraduate general program
- 300-499 Undergraduate advanced or specialized program

Within the College of Arts and Sciences the alphabetical catalog-number suffixes -I and -O generally are not used. Other alphabetical suffixes have specific meanings: -H, Honors College courses; -J, junior-level composition courses; -M, megasections; -T, tutorial courses, -X, study abroad courses.

**CREDIT** — Credit for a course is indicated by the number or numbers in parentheses following the course title. In a quarter course it may be expressed thus: (3), (1-3) or (2 or 3).

A course with one quarter hour of credit (1) is the equivalent of one recitation or two or more laboratory periods a week throughout a quarter.

In a course carrying variable credit, the credit may be expressed (1-4, max 8), indicating that one hour is the minimum and four hours the maximum amount of credit allowed for the course in one quarter. However, a student may enroll in the course any number of times and for any number of credit hours, within the quarter limit, provided the total registration for the course does not exceed eight hours.

Courses which satisfy the Tier II requirements are indicated by a notation on the title line as follows: (2A) means applied science and technology, (2H) means humanities and fine arts, (2N) means natural sciences and mathematics, (2S) means social sciences, and (2T) means Third World cultures.

Course prerequisites are indicated at the beginning of the course description, following the abbreviation "Prereq." A student who has any doubts if he or she has fulfilled prerequisites, due to changes in the numbering system over the past several years, should check the course titles and consult with his or her advisor and the office of the dean. A student who completes an advanced course may not subsequently enroll in a prerequisite course for credit.

If a course is offered for other than the normal academic year of fall, winter, and spring quarters, this fact is noted in parentheses after the prerequisite. Such courses are offered only in the quarters specified.

**INSTRUCTORS** — The listing is as of May, 1981. Unless otherwise indicated in italics following the quarter specification in the course description, the course is taught by the staff of the department.

**FEE** — When a course requires a private instructional fee, the amount is stated in the course description.

**SCHEDULE** — A Schedule of Classes is available each quarter from the Office of Registration.

**COURSES OF INSTRUCTION** are available in the following areas of study:

**Accounting**  
**Accounting Technology**  
**Aerospace Studies**  
**Afro-American Studies**  
**Anthropology**  
**Art**  
**Art History**  
**Aviation**  
**Botany**  
**Business Administration**  
**Business Law**  
**Chemistry**  
**Comparative Arts**  
**Computer Science**  
**Dance**  
**Economic Education**  
**Economics**  
**Education**  
**Electronics Technology**  
**Engineering and Technology**  
**Engineering, Chemical**  
**Engineering, Civil**  
**Engineering, Electrical**  
**Engineering, Industrial and Systems**  
**Engineering, Mechanical**  
**English**  
**Film**  
**Finance**  
**Foreign Languages and Literatures**  
**Geography**  
**Geology**  
**Health, Physical Education, and Recreation**  
**Hearing and Speech Sciences**  
**History**  
**Home Economics**  
**Human Services Technology**  
**Industrial Hygiene**  
**Industrial Technology**  
**International Studies**  
**Interpersonal Communication**  
**Journalism**  
**Law Enforcement Technology**  
**Library Media Technology**  
**Linguistics**  
**Management**  
**Marketing**  
**Mathematics**  
**Mental Health Technology**  
**Military Science**

Music  
 Nursing  
 Ohio Program of Intensive English  
 Philosophy  
 Physics  
 Political Science  
 Psychology  
 Quantitative Methods  
 Radio-Television  
 Real Estate Technology  
 Recreational Studies  
 Secretarial Technology, General  
 Security/Safety Technology  
 Social Work  
 Sociology  
 Theater  
 University College  
 University Professor  
 Visual Communication  
 Women's Studies  
 Zoology and Microbiology

## ACCOUNTING

The accounting major is designed to equip the student to enter the profession of accountancy at the beginning level in public or industrial accounting or in governmental or nonprofit institutions.

In addition to the B.B.A. degree requirements, a student majoring in accounting must complete ACCT 303, 304, 305, 310, plus two other accounting courses at the 300-400 level. At least one additional advanced accounting course should be taken to qualify for the CPA examination. The major requirements also include BUSL 357 and QM 401. Note that ACCT 304 (Intermediate) has a prerequisite of permission of the department.

### 101 Managerial Accounting (4)

(fall, winter, spring, summer) Uses of accounting information for making managerial decisions.

### 102 Managerial Accounting (4)

Prereq: 101. (fall, winter, spring, summer) Continuation of 101. See 101 for description.

### 217 Introduction to Taxation (4)

(fall, winter, summer) Introduction to process of taxation with emphasis on broad provisions of federal income tax as it applies to individuals. (Prereq for ACCT 317.)

### 303 Accounting Principles and Procedures (4)

Prereq: accounting and education majors or perm. (fall, winter, summer) Fundamental accounting principles and practices emphasizing data accumulation using accounting techniques. Primarily intended for those specializing in accounting.

### 304 Intermediate Accounting (4)

Prereq: 303 and perm of department (normally an average of 2.5 or better in accounting courses will mean acceptance) (winter, spring) Preparation and analysis of accounting statements, special problems in accounting for current, fixed, and intangible assets, for liabilities and for corporate net worth; funds and reserves, and investments

### 305 Intermediate Accounting (4)

Prereq: 304 (fall, spring) Continuation of 304. See 304 for description

### 310 Cost Accounting (4)

Prereq: ACCT 102, QM 201 (fall, winter, summer) Manufacturing cost determination under job order and process systems. Establishment of standard costs, budgets, and analysis of variances

### 311 Industrial Accounting (4)

Prereq: 101, 102. Primarily for nonaccounting majors. Objec-

tive to explain how accounting data can be interpreted and applied by management in planning and controlling business activities. Major purpose to show how accounting data can help solve problems confronting management. Attention also given to use of accounting data by investors, potential investors, and lenders. Concentration on use of data rather than collection and presentation.

### 312 Accounting for Health Care Organizations (4)

Prereq: ACCT 101 and 102. Introduces student to use of accounting data in planning and controlling health care organizations. Basic cost accounting theory and applications stressed as aids to fee setting, budgeting, asset acquisition functions.

### 317 Federal Income Taxes (4)

Prereq: 101 and 217. (winter, spring) Continuation of 217 with emphasis on details of federal income tax as it applies to individuals and special provisions which apply to corporations.

### 340 Advanced Cost Accounting (4)

Prereq: 310 (spring) Analysis of relevant costs for decision-making including nonmanufacturing costs. Current cost accounting topics.

### 345 Accounting Systems and Internal Control (4)

Prereq: 303 and QM 200. (winter, spring) Systems approach to data collection, classification, and dissemination.

### 347 Tax Research (4)

Prereq: 317. (spring) Advanced tax problems of individuals, partnerships, and corporations with emphasis on tax research and research methodology.

### 406 Advanced Accounting (4)

Prereq: 305. (fall, winter) Problems peculiar to partnerships, receiverships, fiduciaries, installment sales, consignments, insurance, estates and trusts; compound interest applications; governmental accounting; branches, consolidations, and mergers and foreign exchange.

### 407 Advanced Accounting (4)

Prereq: 305. (spring) Seminar in current topics.

### 451 Auditing Principles (4)

Prereq: 24 hrs of accounting. (fall, winter) Purposes and scope of audits and examinations; audit principles and procedures; audit reports and certificates.

### 491 Seminar (3, 4 or 5)

Prereq: perm. Selected topics of current interest in accounting area.

### 497 Independent Research (1-15)

Prereq: perm. Research in selected fields of accounting under direction of faculty member.

### 498 Internship (1-4)

Prereq: perm. (fall, winter, spring, summer)

## ACCOUNTING TECHNOLOGY

The following courses for the A.A.B. program in accounting technology are available only on the Lancaster campus.

This program is currently under revision. Check with the regional campus program director for up-to-date information.

### 103 Financial Accounting Procedures (3)

(fall) Application of fundamental principles to personal service enterprise and mercantile enterprise, with illustrations of double-entry mechanism; procedures of journalizing and posting, accounting for cash, merchandise, notes and interest, revenue and expense, financial statement preparation, including adjusting and closing procedures

### 104 Financial Accounting Procedures (3)

Prereq: 103 (winter) Consideration of accounting procedures

for purchases, sales (including installment and consignment sale), inventory, prepaid expenses, tangible long-lived assets; accounting procedures for owners' equity in single proprietorship, partnership, and corporation; year-end worksheet procedure; annual report including income statement, balance sheet, and statement of changes in financial position; interim statements.

### 105 Financial Accounting Procedures (3)

Prereq: 104. (spring) Consideration of accounting procedures for corporate form of organization including organization and management, corporate records, capital stock transactions, corporate earnings, corporate bonds; accounting procedures for investments and long-lived intangible assets, branch operations, voucher systems, manufacturing businesses, financial statement analysis.

### 106 Financial Accounting Procedures (3)

Prereq: 104, taken concurrently with 105. (spring) Data collection procedure, working paper procedure, and financial statement procedure for service enterprise, mercantile enterprise, and manufacturing enterprises.

### 203 Tax and Governmental Reporting Procedures (4)

Prereq: 106. (fall) Consideration of data sources, forms, and filing requirements for payroll taxes, income taxes, withholding taxes, FICA, sales taxes, unemployment reports, and a wide variety of other specialized local, state, and federally required reports and procedures.

### 204 Electronic Data Processing Accounting Procedures (4)

Prereq: 106. Consideration of impact of computer and other electronic data processing devices on accounting procedures, including use of specialized machines and programs.

### 205 Manufacturing Accounting I (4)

Prereq: 106. (winter) Data collection procedures for manufacturing firms for actual, normal, and standard job order cost accounting systems, including methodology and data requirements for determination of standards.

### 206 Manufacturing Accounting II (4)

Prereq: 205. (spring) Data collection procedures and reports for manufacturing firms for actual, normal, and standard process cost accounting systems including methodology of allocation of service department costs.

### 209 Business Statistics (4)

Basic statistics, demonstrated and developed through problems typical of actual business situations. Procedures and applications of statistical analysis and inference as they relate to business activity.

### 299 Independent Study (1-5)

Prereq: perm of instructor. Supervised independent study projects in accounting technology.

## AEROSPACE STUDIES

The Department of Aerospace Studies offers two programs, either of which leads to a commission as a second lieutenant in the United States Air Force.\* The four-year program is designed for students who can begin Air Force ROTC with the fall quarter of their freshman year and complete aerospace studies requirements by their date of graduation. Students taking the four-year program begin by enrolling in AST 100- or 200-level courses, whichever is in the *Schedule of Classes*. The AST 100 and 200 courses are taught on an alternate-year basis. Out-of-sequence courses can be scheduled by arrangement with the Department of Aerospace Studies.

The two-year program is designed for students unable to take Air Force ROTC during their first two years of college. It is similar to the last two years of the four-year program. Students interested in this program will not schedule Air Force ROTC during their first two years; however, they should consult the chairman of aerospace studies during their freshman year (or, in any event,

not later than fall quarter of the sophomore year) for instructions regarding application for this program.

Entry into the Professional Officer Course (AST 300 and 400 series) is based upon a best-qualified selection process. Completion of the General Military Course (AST 100 and 200 series) does not guarantee entry into the Professional Officer Course (POC), but makes one eligible to compete for acceptance into the POC. After achieving commissioned status, the officer serves a minimum of four years active duty with the United States Air Force. For further information contact the Chairman of Aerospace Studies, Lindley Hall.

\*Students enrolled in either program may compete for scholarships which pay full tuition, books, lab fees, and a tax-free monthly allowance

### 101 Strategic Offensive Forces (1)

(fall) Doctrine, mission, and organization of the United States Air Force and U.S. strategic offensive forces. 1 hr of academics and 1 hr of leadership lab each wk.

### 102 Strategic Defensive Forces (1)

(winter) U.S. defensive forces, their mission, function, and employment of nuclear weapons, civil defense, aerospace, and missile defense. 1 hr of academics and 1 hr of leadership lab each wk.

### 103 U.S. General Purpose Forces (1)

(spring) U.S. general purpose and aerospace support forces, mission, resources, and operation of Tactical Air Forces, with special attention given to review of Army, Navy, and Marine general purpose forces. 1 hr of academics and 1 hr of leadership lab each wk.

### 201 Development of Airpower (1)

(fall) History and development of airpower in the United States. 1 hr of academics and 1 hr of leadership lab each wk.

### 202 Contemporary Aerospace Power (1)

(winter) Covers Air Force concepts, doctrine, and employment; how technology has affected growth and development of air power. 1 hr of academics and 1 hr of leadership lab each wk.

### 203 Current and Future Employment of Aerospace Forces (1)

(spring) Changing mission of defense establishment; how air power is employed in military, nonmilitary, and strategic operations. 1 hr of academics and 1 hr of leadership lab each wk.

### 301 Management — Concepts and Practices I (3)

Prereq: GMC or perm. (fall) Human relations, personnel policies; junior officer administrative and staff responsibility; briefing for commissioned service. Continued leadership demonstration and practice. Continued development of communicative skills.

### 302 Military Professionalism and Leadership Theory (3)

Prereq: 301 or perm. (winter) Military professionalism, leadership theory, demonstration, and practice. Development of communicative skills.

### 303 Management — Concepts and Practices II (3)

Prereq: 302 or perm. (spring) Principles and functions of management. Continued leadership demonstration and practice. Continued development of communicative skills.

### 401 The Military and the American Society (3)

Prereq: 303 or perm. (fall) Study of military and professional soldier in a democratic society and military as a socializing institution. Communicative skills via student oral presentations and written reports emphasized.

### 402 Strategy and the Use of Force (3)

Prereq: 401 or perm. (winter) Evaluation of strategy and study of arms control, general and limited war. Continues communicative skills via student presentations and written reports. Emphasizes qualities and techniques of leadership.

### 403 American Defense Policymaking (3)

Prereq: 402 or perm. (spring) Organization and case studies in defense policymaking and bureaucratic decision making. Continues communicative skills and techniques of leadership.

## AFRICAN STUDIES

See International Studies.

## AFRO-AMERICAN STUDIES

The major requirement for the bachelor of science degree in Afro-American studies is 60 hours in the department with a minimum of 30 hours in a focal area — the social sciences or the arts and humanities. Within the 60 hours, majors are required to complete 106, 221, and one of the following courses: 101, 103, 109, or 119. In addition, majors are required to complete eight hours of a foreign language; 18 hours each in the humanities, social sciences, and natural sciences/mathematics; plus the University English composition requirement of one freshman-level course and one advanced-level course.

The minimum grade-point average for graduation is 2.0 (C) in all hours attempted. Also, the grade of at least C is required in each major course.

Advising is an essential part of the Afro-American Studies Program. Each major works closely with a faculty member whose capabilities are related to the student's academic interests.

### 101 Introduction to Afro-American Arts (2-5)

Comparative study of ideas and esthetic trends in Afro-American art from colonial slavery through contemporary black arts movement.

### 103 Introduction to Afro-American Education (5)

Explores philosophical foundations and development of education for Afro-Americans, and formulation of dual educational system. Further, makes comparisons and contrasts among various philosophical views which have shaped formation of American educational institutions, theories, and practices. Introduces students to innovations, issues, and approaches in education.

### 106 Introduction to Afro-American Studies (5)

Interdisciplinary course designed to introduce student to field of Afro-American studies. Focuses upon subject matter, scope, assumptions, and methods of various academic disciplines that are constituent parts of Afro-American Studies Program, and seeks to show how these disciplines collectively contribute to broadest understanding of Afro-American experience and, thus, of general American experience from a black perspective.

### 109 Introduction to Afro-American Literature I (5) (2H)

Survey of Afro-American literature from 1760 to 1910. Student introduced to major writers, themes, and genres of period, as well as to subliterary materials that shed light on Afro-American experience. Student also introduced to variety of critical approaches, techniques, and methods for studying literature.

### 110 Introduction to Afro-American Literature II (5) (2H)

Continuation of 109. Deals with Afro-American literature from 1910 to 1940, with major focus on Harlem Renaissance. Concentration on works of Johnson, McKay, Toomer, Cullen, Hughes, Hurston, Wright, et al.

### 111 Introduction to Afro-American Literature III (5) (2H)

Continuation of 110. Survey of Afro-American literature from 1940 to present. Concentrates upon major writers and movements of period. For example, Ellison, Baldwin, John Williams, Robert Hayden, Amiri Baraka (LeRoi Jones), Ishmael Reed, Ernest Gaines, and others given attention as well as Black Arts Movement and black esthetics.

### 113 Literature of Africa: Introduction (5) (2T)

Survey of literature by African authors. Deals with expression of African experiences via novels, plays, and poetry.

### 115 History of Afro-American Music I: Slavery - 1926 (3-5) (214)

Socio-historical examination of Afro-American music and its role in shaping American music. Recordings and guest lecturers used as integral part of course. This course examines spirituals, rural blues, ragtime, and early jazz.

### 116 History of Afro-American Music II: 1926 - present (3-5) (2H)

Socio-historical analysis of Afro-American music, its role in shaping modern American music. Recordings and guest musician/lecturers used as integral part of course. Examines the big band era, urban blues, bebop, rhythm and blues, hard bop, black classical composers, contemporary popular, and avant garde musics.

### 119 Introduction to Black Media (3) (2H)

Historical analysis of images of blacks in cinema, radio, and television programming; origin and development of stereotypes; relationship of these images to societal developments; examination of alternatives.

### 153 History of Colonialism (5)

Historical-social analysis of development of colonialism in Africa, how colonialism led to underdevelopment of Africa, and review of ideological justification of this phenomenon. Special focus placed on development of colonialism in 19th and 20th centuries up to Year of Africa (1960). Specific attention given to ideological contribution of Frantz Fanon to colonial situation. Combination of books in fields of history, psychology, economics, and literature so student will obtain integral picture of colonial period.

### 201 History of the Black Worker (5) (2S)

Analysis of historical role of black labor force in American economy, with emphasis on patterns of relationships between black workers and general organization of American labor movement.

### 210 Afro-American Literature (5)

Extensive examination of Afro-American authors in variety genres — novels, plays, poetry. Influence of larger American society as reflected in literature of black experience. Cultural and literary images of black experience and development of black literary tradition.

### 211 Comparative Black Literature: The Cultural Matrix (5) (2T)

Survey of techniques for evaluating Black World literature — from Africa, Caribbean, and U.S. Systematic development of interconnections of themes, techniques, and esthetic views found in works of various black writers focal point of course. Aspects of culture (social, political, and economic) surveyed for their impact on literature. Critical readings on comparative literature used as supplementary materials. Relationship of literature — both form and function — to society discussed.

### 221 Basic Political Economy (5) (2S)

Exploration of theories of political policies and economic processes, their interrelations, and their influence on socio-economic character of black community.

### 251 Introduction to Afro-American History 1526-1865 (5) (2S)

Survey of key economic, political, ideological, and social elements that shaped destinies of black people in United States from 1526-1865.

### 252 Black Community Development, 1865 to the Present (5) (2S)

Survey of key economic, political, ideological, and social elements that have shaped destinies of black people in United States from 1865 to present.

### 253 History of Neo-Colonialism (5) (2T)

Attention paid to historical social analysis of neo-colonialism — how new methods and maneuvers used to exploit labor and resources in 20th century. Focus on Africa, although students' area of interest will also be accommodated.

### 254 History of Injustice in the United States (5)

Critical analysis of problems of injustice in United States. Special attention given to 1) education, 2) voting, 3) social services, 4) fair housing, and 5) legal system.

### 264 Comparative Study of Injustice (5)

Comparative analysis of different approaches to civil and human rights in selected countries in developed and developing

countries. Review of theory of justice and political consequences in chosen countries.

### **300 Urban Violence (5)**

Systematically examines empirical and theoretical literature on urban violence, particularly riots during 1960s.

### **301 Current Issues in Education (5)**

Systematic study of contemporary issues in Afro-American education, including multi-ethnic studies versus black studies, busing, affirmative action, quality education.

### **302 Politics of Language (5)**

Interdisciplinary approach to interrelationship between historical experience and socio-cultural expression in Africa, America (especially U.S.A.) and Europe (especially England/Great Britain). Examination of impact of (and changes in) vocabulary of art, literature, politics, religion, and social interaction.

### **304 Urban Education (5)**

Explores historical development of urban school systems. Also explores social and political relationships that exist between school and other urban bureaucracies, as well as political formation of school funding policies. Further attempts to determine impact of urban social changes upon schools. All of the above focus upon how Afro-Americans and other ethnic groups have been affected by these formations and changes.

### **323 Black Politics in the United States (4) (2S)**

Provides systematic analysis of impact of Black Liberation Movement on U.S. political processes, beginning historically with role of slave revolts and encompassing social, economic, and political dimensions of black community. Conceptual framework employed based on community power studies. Lectures and readings will also include relationship between concept of black power and rise of black politics as vehicle for social change. Not open to those with credit for POLS 323.

### **341 Afro-American Personality (5)**

Prereq: PSY 101. Examination of organization and structure of Afro-American personality within American and African socio-psychological contexts. Special emphasis on various forces which shape Afro-American personality.

### **350 The Black Community in the 20th Century (5) (2S)**

Survey of black community's development during 20th century and its relation to development of larger American society over same period. Focus on post-WW II community processes.

### **355 Literature of West Africa (5) (2T)**

Prereq: jr or sr rank. Intensive examination of representative works, authors, and movements. Using cultural and socio-political perspectives and springboards, course seeks to define style, structure, and mode and to indicate how these interrelate, help to determine meaning, form, etc. Authors like Achebe, Amah, Senghor, Soyinka, Laye and Oyono, Mongo Beti and Kofi, Awoonor, and Ama Ata Aidoo considered, to analyze e.g., Negritude, phases in West African writing during last 30 yrs. Essays and critical literature given some attention.

### **356 Contemporary Afro-American Literature (5) (2H)**

Focus is on Afro-American literature of 1960s and since. Concern with writers who emerged as major figures during this period. Attention also given to major literary, cultural, and esthetic developments that fashioned new favorability among black writers and to traditions of which literature is a part.

### **357 Caribbean Literature: Major Authors and Movements (5) (2T)**

Survey of literature in English and translations written by Caribbean authors. Major themes and literary movements of Caribbean discussed: Negritude, Negritismo, ancestral imperative, search for identity, reordering of group images. Transcultural and syncretic elements discussed. Outside readings essential for class contributions.

### **358 Literature of South Africa (5) (2T)**

Explores development of South African literature (poetry, prose, novels, autobiography, short stories, and drama) during last 25 yrs and while confining itself to writings of black writers of all complexions, examines how this literature reflects conditions of life of majority of South African population. Course entails vast

landscape of structured background reading on history, politics, economics, and demography of South Africa and on esthetics of particular cultures.

### **360 Black Political Thought (5) (2S)**

Analysis of basic tenets of black thought in U.S. Emphasis on theoretical dimensions of post-Civil War black social and political thinkers.

### **369 Experimental Course (1-5)**

This number is restricted to courses that may be offered no more than twice under this designation. For use with courses with which faculty members may wish to experiment before making them part of regular curriculum.

### **402 The Black Child (5) (2S)**

Designed to do in-depth study of black child, impact and effects of growing up black in America. Specifically, course will deal with effects and role of school and family in creative adjustment of black child in predominantly white society. Primarily designed for prospective teachers, individuals planning to work or working in social service agencies, parents, and others interested in development of future generations of well-adjusted black students.

### **431 Psychology of Neo-Colonialism (5)**

Examination of role of neo-colonialism in shaping social psychology of the oppressed. Special examination made of works of Fanon, et al.

### **442 Techniques of Teaching in the Inner City (5)**

Provides instructional experiences which allow student to develop skills in using systematic instruction in inner-city schools by permitting each student to demonstrate successfully his or her proficiency in use of various teaching strategies which will enhance learning in inner-city schools. Visits to selected metropolitan inner-city schools made throughout qtr.

### **462 Literature Seminar (5)**

Subject will vary. May be repeated as subject changes.

### **482 The Black Family (5)**

Black family in America and its important role in development of ethnic differences, strengths, and strategies.

### **490 Independent Study (1-5)**

Prereq: prior perm. Primarily for students interested in concentrated study in specific area in cooperation with advisor.

### **490E Political Economy of Urban Development (5)**

Deals with laws of development of urbanization as it relates to anatomy of civil society. Especial focus placed on how current urban crisis is related to structural, cyclical, and general crisis of modern society. Political economy or urban ghetto both in United States and Third World will be singled out for special inquiry. New thought given to suburbanization process, the so-called "Post City Phenomenon," etc. Due focus placed on connection between urban crisis, racial problems, and possibility of American apartheid. Urbanization as a social process in Africa, Asia, and Latin America studied in a comparative way.

### **490I Conference on Racism (1-5)**

Films and/or visiting speakers to illustrate and discuss aspects of imperialism, e.g., racial discrimination and oppression, colonialism, war, environmental and social pollution, genocide, sexism, liberatory struggles, women's struggles for equality, minority struggles, minority cultures.

### **490N Black Perspectives (1-3)**

Consists of on-campus and visiting lecturers presenting black perspective regarding social, economic, and political conditions of minority people.

## **ANTHROPOLOGY**

### **General Emphasis**

Anthropology provides a broad framework by which human activities, adaptations, and changes may be interpreted mean-



ingfully, both in time and in space. It is useful, not only to students of social and environmental studies, but to those interested in journalism, film, photography, dance, linguistics, cross-cultural communications, and other areas.

## Preparation in Anthropology

Students who are interested in becoming professional anthropologists may prepare for graduate school in the Department of Sociology and Anthropology. The anthropology major offers students training in the methods and results of cultural anthropology, biological anthropology, and archaeological anthropology. A minor in anthropology is also available for those students who wish to add a cross-cultural dimension to their university education.

## Advising

Majors are required to select their advisors from among the anthropology faculty. As student interest shifts, the advisor may be changed to reflect new interests. An advisor will aid in the design of an individualized course of study. Nonanthropology courses can be declared as anthropology credit towards the major with permission from the advisor: for example, an interest in ethnobotany may lead to botany courses counting as part of an anthropology major. Of the total hours required, however, no fewer than 36 hours must be in departmental anthropology courses. Students are encouraged to take courses in fields related to anthropology (for instance, courses in botany, zoology, geology, geography, linguistics, international studies, mathematics, psychology, sociology, and so on may be recommended for students interested in particular anthropological specialties.) All majors are required to take the introductory courses in cultural anthropology (101); biological anthropology (201); and anthropological archaeology (202).

## Course Requirements

For a major in anthropology:

	Credit Hours
ANTH 101, 201, 202	15
16 additional hours in anthropology	
at the 400 level	16
24 additional hours in anthropology	
courses at any level	24
TOTAL	55

For a minor in anthropology:

	Credit Hours:
ANTH 101	5
ANTH 201 or 202 (both recommended)	5
16 additional hours in anthropology	
(to include 4 hours at 400 level and	
4 additional hours at the 300 or 400 level)	16
TOTAL	26

### 101 Introduction to Cultural Anthropology (5)

Basic concepts, introduction to various world cultures, nature of cultural diversity; evolution of sociocultural systems. Qualifies as a Tier II non-Western cultures course.

### 201 Introduction to Biological Anthropology (5) (2N)

Human evolution, fossil record, evolution of primates; human variation

### 202 Introduction to Anthropological Archaeology (5) (2S)

Basic concepts, research strategies, field data of anthropological archaeology, sociocultural evolution through archaeological record

### 348 Education: Cross-cultural Perspectives (4)

Prereq: 101 Survey of ways of growing up in various cultures, emphasizing relationships between individual and culture

### 350 Economic Anthropology (4)

Prereq: 101. Survey of economic arrangements found in various types of cultural systems, with emphasis on application of anthropological theory and method for understanding of particular systems.

### 351 Political Anthropology (4)

Prereq: 101. Cross-cultural survey of political arrangements with emphasis on application of anthropological method and theory to political problems.

### 352 Archaeological Anthropology (4)

Prereq: 101, 202. Introduction to the new archaeology in which goals, theory and methods are directed toward reconstruction of extinct sociocultural systems rather than toward time-space distribution of archaeological materials.

### 355 Medical Anthropology (4)

Prereq: 101. Non-Western medical systems and theories of health and disease causation; social basis for diagnosis and cure; curing rituals; symbolism of health and illness. Ecological factors in health and nonhealth: systematic connections between health or illness and both way of life and environmental situation.

### 358 Women: A Cross-Cultural Survey (4)

Prereq: 101. Cross-cultural survey of women with emphasis on factors determining roles and status of women in various types of cultural systems.

### 366 Cultures of the Americas (4)

Prereq: 101. Survey of cultural diversity present in North, South, or MesoAmerica with emphasis on application of anthropological method and theory to understanding of particular sociocultural systems.

### 370 General Anthropology (5)

Sr terminal course in introductory anthropology. Not open to students who have taken 101.

### 371 Ethnology (4)

Prereq: 101. Cross-cultural survey of structure and process in various cultures; includes consideration of kinship, economics, politics, ideology, and cultural ecology.

### 372 Cultures of the World (4)

Prereq: 101. Ethnographic sampling of similarities and differences in cultural systems found around the world and through time.

### 373 Perspectives in Anthropology (4)

Prereq: 101. Includes topics from following areas of anthropological concern: nature of scientific inquiry, ethnology (historical school, structural-functional approach, evolutionism, culture and personality), linguistics, archaeology, physical anthropology.

### 375 Culture and Personality (4)

Prereq: 101; psychology recommended. Interrelations between personality systems and cultural systems.

### 377 Peasant Communities (4)

Prereq: 101. Focuses on folk component of state societies.

### 381 Culture Areas of Sub-Saharan Africa (4)

Prereq: 101. Survey of cultural diversity present in Sub-Saharan Africa with emphasis on application of anthropological theory and method to understanding of particular sociocultural systems.

### 382 Archaeology of Europe (4)

Prereq: 101. Archaeological material of European cultures from Neolithic to early Middle Ages, principles of excavation, problems of analysis, and research.

### 385 Cultures of Southeast Asia (4)

Prereq: 101. Survey of cultural systems of island and mainland Southeast Asia

### 386 Problems in Southeast Asian Anthropology (4)

Prereq: 101 Selected topics of current theoretical concern relating to Southeast Asia

### 387 Cultures of Oceania (4)

Prereq: 101. Anthropological survey of Pacific island cultures.



**391 Primate Social Organization (4)**

Prereq: 101, 201. Introduction to primate ethology, with reference to development of cultural behavior.

**399 Readings in Anthropology (1-3, max 6)**

Prereq: 101 and perm. Supervised readings in various fields of anthropology: archaeology, ethnology, linguistics, physical anthropology.

**455 Seminar in Methodology and Field Research (1-4, max 8)**

Prereq: 13 hrs and perm. Practical training in application of theoretical methods to data in one of following sub-fields: archaeology, ethnology, physical anthropology. Primarily designed for anthropology majors.

**457 Anthropology of Religion (4)**

Prereq: 9 hrs. Survey of various aspects of religion in their cultural setting, with emphasis on use of anthropological theories for an objective understanding of religion.

**460 Kinship (4)**

Prereq: 9 hrs. Theoretical framework and ethnographic work on kinship systems of various world cultures; non-Western family systems; kinship terminology; social change in kinship systems.

**472 History of Anthropological Thought (4)**

Prereq: 101, 201, or 202. In-depth examination of schools of anthropology as they have developed within various sub-fields at different times and places.

**476 Culture Contact and Change (4)**

Prereq: 9 hrs. Impacts of cultures upon one another: immediate and subsequent cultural adaptations.

**478 Cultural Ecology (4)**

Prereq: 13 hrs. Analysis of mutual and reciprocal relations between sociocultural systems and other systems in their environment: ecosystems and biotic communities in which human populations are included.

**490 Independent Research in Anthropology (1-10, max 10)**

Prereq: open to srs only; 20 hrs anthropology and written perm prior to qtr in which study is begun. Individual research in anthropology in specific problem areas in which student has demonstrated ability and interest.

**492 Human Evolution (4)**

Prereq: 201. Basic principles of synthetic theory of evolution, development of mammals, and evolution of primates, with emphasis on Pongidae and Hominidae.

**494 Seminar in Anthropology (4-6, max 12)**

Prereq: 13 hrs. Selected topics in anthropology.

**496 Human Diversity (4)**

Prereq: 201. Population genetics of human variation emphasized, particularly basic Mendelian concepts, anthropometric variation, and raciation.

## ARCHAEOLOGY

(See Anthropology and Foreign Languages and Literatures (Greek and Latin Languages).

## ART

**100 Seeing and Knowing the Visual Arts (3) (2H)**

Introduction to perceiving and understanding meanings and organizational systems in traditional and contemporary visual arts in context of their social and cultural backgrounds.

**101 Two-Dimensional Design (4) (2H)**

Studio projects exploring the vocabulary of 2-dimensional

design and dynamics of color systems. Introduction to processes and media. Not open to jr or sr art majors.

**102 Three-Dimensional Design (4) (2H)**

Studio projects in 3 dimensions exploring ordered and dynamic interactions of mass, plane, volume, and space. Introduction to processes and media. Not open to jr or sr art majors.

**105 Introduction to Painting (4) (2H)**

Survey of formal painting concerns including color and composition. Studio emphasis; 5 lec per qtr. Not open to jr or sr art majors.

**115 Introduction to Ceramics (4) (2H)**

Exploration of ceramic techniques for familiarization with range of expression available through ceramic materials. Projects, demonstrations, lectures and discussions. Not open to jr or sr art majors.

**128 Introduction to Drawing (4) (2H)**

Use of line, tone, perspective, and texture in objective drawing; development of motor control and visual skills; use of drawing tools. Not open to jr or sr art majors.

**131 Introduction to Sculpture (4) (2H)**

Exploration of traditional and modern concepts of sculpture; lectures, projects and discussions. Not open to jr or sr art majors.

**141 Introduction to Printmaking (4) (2H)**

Printmaking concepts and processes including silkscreen, lithography, etching, and relief prints. Projects, demonstrations, and discussions. Not open to jr or sr art majors.

**151 Introduction to Graphic Design (4) (2H)**

Studio projects in lettering, typography, spatial design, illustration and media with emphasis on graphic design as visual communication. Not open to jr or sr art majors.

**191 Introduction to Photography (4) (2H)**

Introduction to the art and techniques of photography for majors or nonmajors. Students must have suitable cameras and supply processing and enlarging accessories. 1 lec, 4 lab hrs per wk.

**192 Basic Photography (4)**

Prereq: 191 or portfolio and perm. Continuation of 191. Approaches picture-making problems and advanced control of media for prospective majors.

**205 Basic Painting (4)**

Prereq: 12 hrs studio art including 105 or perm. Development of formal, technical, and conceptual attitudes in painting.

**206 Intermediate Painting (4)**

Prereq: 205. Problems in painting investigating recent developments and formal concepts.

**207 Intermediate Painting (4)**

Prereq: 206. Continuation of 206.

**215 Handbuilding (4)**

Prereq: 12 hrs studio. 3-D form exploration using additive construction processes. Simple engobe, slips, and claybody formulations accompany these projects.

**216 Introduction to Wheel Throwing (4)**

Prereq: 215. Introduction to creative possibilities of potter's wheel. Functional projects utilizing decorative skills from ART 215.

**217 Combined Techniques (4)**

Prereq: 215, 216. Projects designed to expand information introduced in 215-216. Increase in scale and scope of individual solutions. Wheel throwing and handbuilding.

**228 Basic Drawing (4)**

Prereq: 12 hrs studio art or perm. Emphasis on techniques of drawing. Composition, proportion, and disciplined seeing; text may be used.

**231 Sculpture: Wood Carving (4)**

Prereq: 12 hrs studio art or perm. Introduction to tools, techniques, and esthetics of sculpture in wood.

**232 Sculpture: Figure Modeling (4)**

Prereq: 12 hrs studio art or perm. Introduction to sculpture in clay based upon human figure: includes slide presentations; expression through form and gesture emphasized.

**236 Sculpture: Metal Design (4)**

Prereq: 12 hrs studio art or perm. Introduction to historic and functional applications of metals and other materials: includes silversmithing, forging, and casting

**241 Lithography (4)**

Prereq: 12 hrs studio art or perm. Introduction to basic lithographic drawing and printing. Emphasis on application of techniques to image making.

**242 Intaglio (4)**

Prereq: 12 hrs studio art or perm. Introduction to basic techniques of intaglio printmaking including etching, dry-point, aquatint, and color printing. Emphasis on application of techniques to image making.

**247 Relief Printing (4)**

Prereq: 12 hrs studio art or perm. Basic techniques of relief printing from wood, metal, and assembled plates in black and white and color. Emphasis on application of techniques to image making.

**248 Serigraphy (4)**

Prereq: 12 hrs studio art or perm. Basic techniques of screen printing including hand-cut stencils, photographic stencils, and multicolor printing. Emphasis on application of techniques to image making.

**251 Graphic Design: Typography (4)**

Prereq: 12 hrs studio art or perm. Typography as a designer's tool and as communication. Emphasis on design of symbols and type faces

**252 Graphic Design: Three Dimensional (4)**

Prereq: 12 hrs studio art or perm. Examination of 3-dimensional design problems with special attention to environment, packaging, and display.

**253 Graphic Design: Illustration (4)**

Prereq: 12 hrs studio art or perm. Pictorial imagery as a design tool. Problems in product, poster, magazine, and book illustration

**254 Graphic Design: Lettering (4)**

Prereq: art education major or perm. Lettering as a design and communication element. History and techniques of lettering and calligraphy

**271 Introduction to Art Therapy (5)**

Prereq: PSY 101 and 12 hrs studio art. Survey of art therapy field, its history and background. Exploration of basic theoretical concepts, use of case histories, research methods, and present clinical practices

**275 Fibers (4)**

Prereq: 12 hrs studio art or perm. Spinning fibers, natural dyeing methods, and primitive weaving techniques

**276 Fibers (4)**

Prereq: 275 or perm. Introduction to weaving on multi-harness floor looms

**295 Intermediate Photography (5)**

Prereq: 192 portfolio review, photography art majors only and perm. Thorough presentation of craftsmanship in photography with emphasis on esthetics. 3 lec, 4 labs. Majors expected to enroll concurrently in AH 237-239

**296 Intermediate Photography (5)**

Prereq: 295. Black and white and color transparencies and slide show productions. Investigation of sequential imagery with sound synchronization. Continuation of 295

**297 Intermediate Photography (5)**

Prereq: 296. Color printing from negative color materials

**303 Watercolor (5)**

Prereq: 207, 228. Techniques of transparent watercolor

**304 Watercolor (5)**

Prereq: 303. Continuation of 303.

**305 Advanced Painting (5)**

Prereq: 207. Development of personal goals and identification of issues with emphasis on individual, creative problems in painting.

**306 Advanced Painting (5)**

Prereq: 305. Continuation of 305.

**307 Advanced Painting (5)**

Prereq: 306. Continuation of 305-306.

**308 Figure Painting (5)**

Prereq: 207 and 328. Painting from model.

**309 Figure Painting (5)**

Prereq: 308. Continuation of 308.

**312 Ceramic Throwing (3)**

Prereq: 216. Intermediate throwing problems. Throwing pursued with goal of developing skilled production potters. Course content directed toward, but not limited to, utilitarian object making. Sensitivity toward quality of ware and value of hand-made object stressed.

**313 Advanced Ceramic Throwing (3)**

Prereq: 312 or perm. Continuation of 312.

**314 Ceramic Science (5)**

Prereq: 12 hrs studio, 217. Comprehensive study of function of ceramic materials in clay and glazes, effect of firing temperatures, and practical and empirical techniques of using ceramic materials.

**315 Ceramics (5)**

Prereq: 217. Clay body formulation, wheel throwing, hand building, engobes, kiln firing, salt glazing, and vapor glazing techniques.

**316 Ceramics: Porcelain (5)**

Prereq: 315. Study of white and porcelainous clay materials, effects on glazes, and limiting characteristics.

**317 Ceramics: Stoneware (5)**

Prereq: 316. Stoneware materials and high-temperature reduction firing.

**321 Drawing Workshop (4)**

Prereq: 328 or perm. (not offered every quarter) Projects using traditional techniques and drawing media including pen and ink and silver-point.

**322 Drawing Workshop (4)**

Prereq: 321. Continuation of 321.

**328 Intermediate Drawing (4)**

Prereq: 228 (not offered every quarter) Drawing from model. Proportion, structure, and form. Various media.

**329 Advanced Drawing (4)**

Prereq: 328. (not offered every quarter) Approach to personal imagery in drawing. Individual response to traditional and modern drawing attitudes.

**331 Sculpture: Wood Carving (5)**

Prereq: 8 hrs sculpture including 231. Advanced wood sculpture

**332 Sculpture — Figure Modeling (5)**

Prereq: 8 hrs sculpture or perm. Figure studies in clay. To develop better perceptions of masses in space and esthetic relationships. Expression through form and gesture emphasized

**333 Sculpture: Metals (5)**

Prereq: 8 hrs sculpture including 233. Introduction to techniques of sculpture in metal including casting and welding processes and historical and esthetic development

**334 Sculpture: Wood Fabrication (5)**

Prereq: 8 hrs sculpture or perm. Introduction to joining and fastening techniques, additive sculptural processes, and use of

power equipment and hand tools in production of sculpture; development of sensitivity for sculptural ideas.

### 337 Sculpture: Furniture Design (5)

Prereq: 8 hrs sculpture or perm. Woodworking sculpture techniques applied to furniture design as medium for visual expression. Methods of furniture construction including machine woodworking and joinery. Study of utilitarian design, furniture types and purposes, human factors, and esthetics of functionalism.

### 341 Advanced Printmaking (5)

Prereq: 8 hrs printmaking. Supervised studio experience in printmaking media of student's choice (intaglio, lithography, relief and/or serigraphy); includes demonstrations and lectures on related topics. Emphasis on development of techniques and concepts of printmaking.

### 342 Advanced Printmaking (5)

Prereq: 341. Continuation of 341.

### 343 Advanced Printmaking (5)

Prereq: 342. Continuation of 341-342.

### 351 Graphic Design: Typography (5)

Prereq: 251. Practical and experimental type design including typesetting, reproduction, and printing processes.

### 352 Graphic Design: Exhibit (5)

Prereq: jr rank. Exhibit and presentation as environmental design and communication including educational, museum, and commercial exhibit applications.

### 353 Graphic Design: Illustration (5)

Prereq: 253. Continuation of 253.

### 354 Graphic Design: Media (5)

Prereq: 8 hrs of graphic design or perm. Time, motion, light, and sound as design and communication tools. Problems in design with film, slides, overhead projection, sound track, and video tape.

### 355 Film Animation (5)

Prereq: FILM 361 or perm. Design problems in 16mm film animation. Basic methods and camera techniques.

### 360 Art for Elementary Teachers (6)

Prereq: jr rank. To provide future elementary teacher with comprehensive understanding of nature of art materials and children's art work.

### 371 Art Therapy (5)

Prereq: 271. Application of art and psychology to art therapy work. Exploration of projective techniques. Studio work will develop personal, psychological insight, appreciation of emotions, symbolism, and processes of group interaction.

### 375 Fibers (5)

Prereq: 276 or perm. 3-dimensional construction methods including basketry, crochet, and woven structures.

### 376 Fibers (5)

Prereq: 375. Fabric manipulation methods, stitchery, quilting, and resist dyeing techniques.

### 391 Photographic Arts (5)

Prereq: 297, portfolio review, and perm. View camera techniques and creative and technical applications of view camera format in black and white photography.

### 392 Photographic Arts (5)

Prereq: 297, portfolio review, and perm. Application of series and sequential imagery to expression in photography.

### 393 Photographic Arts (5)

Prereq: 297, portfolio review, and perm. Experimental methods and materials (gum bichromate, magazine lifts, photo-montage, quick-proof, 3-color overlays, Kodalith, and multiple printing).

### 397 Photographic Communications (5)

Prereq: portfolio review and perm. Structured work in newspaper photojournalism.

### 398 Photographic Communications (5)

Prereq: portfolio review and perm. Structured work in magazine photography. Introduction to picture story.

### 399 Photographic Communications (5)

Prereq: portfolio review and perm. Structured work in documentary photography. Intermediate slide show production.

### 400 Senior Seminar in the Visual Arts (4)

Prereq: perm. Interdisciplinary course designed to deal with professional issues beyond those pertinent to specific media, to enrich experience in various areas and professional levels and to permit valuable exchange of information on current issues in art world.

### 401 Painting Practicum (3)

Prereq: sr rank and perm. Preparation for senior presentation and portfolio.

### 405 Senior Painting Studio (5)

Prereq: 307. Advanced problems in painting.

### 406 Senior Painting Studio (5)

Prereq: 405. Continuation of 405.

### 407 Senior Painting Studio (5)

Prereq: 406. Continuation of 405-406.

### 410 Ceramics Practicum (3)

Prereq: sr rank and perm. Preparation for senior presentation and portfolio.

### 415 Ceramics: Primitive Techniques (5)

Prereq: 317. Special effects and limitations of raku, pit, wood, sawdust or saggar firing on wheel-thrown and hand-built objects.

### 416 Ceramics (5)

Prereq: 415. Sr problems.

### 417 Ceramics (5)

Prereq: 416. Sr problems.

### 418 Glass (5)

Prereq: sr rank or perm. Introduction to glassblowing, glasscasting, and other techniques in hot glass.

### 419 Glass (5)

Prereq: 418 and perm.

### 428 Advanced Drawing (4)

Prereq: 329. (not offered every quarter) Continuation of 329.

### 429 Advanced Drawing (4)

Prereq: 428. Continuation of 329 and 428.

### 430 Sculpture Practicum (3)

Prereq: sr rank and perm. Preparation for senior presentation and portfolio.

### 433 Sculpture: Metals (5)

Prereq: 333. Advanced techniques in metal sculpture; emphasis on esthetic development; projects based on individual student interest.

### 434 Sculpture: Wood Fabrication (5)

Prereq: 334; 8 hrs sculpture. Continuation of 334.

### 436 Sculpture: Metal Design (5)

Prereq: 236. Advanced projects in utilitarian designs in metal based on individual student interest. Emphasis on historical base and esthetics.

### 438 Sculpture Seminar (5)

Prereq: sr rank, sculpture major. Contemporary issues in sculpture.

### 440 Prints Practicum (3)

Prereq: sr rank and perm. Preparation for senior presentation and portfolio.

### 441 Advanced Printmaking (5)

Prereq: 341-443 to be taken in sequence. See 341. Emphasis on personal and professional development in printmaking.

### 442 Advanced Printmaking (5)

Prereq: 441. Continuation of 441.

**443 Advanced Printmaking (5)**

Prereq: 442. Continuation of 441-442.

**450 Design Practicum (3)**

Prereq: sr rank and perm. Preparation for senior presentation and portfolio.

**451 Graphic Design: Senior Studio (5)**

Prereq: 27 hrs of graphic design or perm. 2- and 3-dimensional graphic design with emphasis on professional and creative solutions. Problems in research and production.

**452 Graphic Design: Senior Studio (5)**

Prereq: 451 or perm. Design problems carried through all professional stages. Examination of design in context of various applications.

**453 Graphic Design: Senior Studio (5)**

Prereq: 452 or perm. Emphasis on individual problems and individual professional orientation. Portfolio preparation and presentation. Production of brochure and preparation of resume.

**461 Art Experiences in the Elementary School (3)**

Prereq: EDSE 351. Emphasizes importance of art in elementary school curriculum. Traces evolvement of children's symbols from scribble to realistic representation. Teaching strategies, art materials, appropriate art processes. Field experiences and text.

**462 Art Teaching in the Secondary School (3)**

Prereq: jr rank. To prepare student for realities of secondary school art program environment, physical and intellectual as well as emotional. To develop positive, constructive attitudes and knowledgeable teaching skills.

**471 Art Therapy Internship (15)**

Prereq: 271 and 371; sr rank. Internship involves 1-quarter-long attendance in art therapy unit in hospital or mental health center. Practical experience of working with patients supported by lectures and seminars on such topics as "The Psychopathology of Art," "Group Art Psychotherapy" and "Orientation to Art Therapy in Clinical Situations."

**475 Fibers (5)**

Prereq: 376 or perm. Advanced off-loom methods; nonwoven fabrics, and surface design.

**476 Fibers (5)**

Prereq: 475 or perm. Advanced loom weaving and individually designed projects on or off loom.

**480 Individual Problems (1-5)**

Prereq: perm. Projects, ideas, or explorations that cannot reasonably be made within regular course structures. Requires permission of faculty member prior to registration.

**481 Individual Readings (1-5)**

Prereq: perm. Reading and research related to studio work. For projects not reasonably part of structure of regular studio courses. Requires consent of faculty member prior to registration.

**490 Photography Practicum (3)**

Prereq: sr rank and perm. Preparation for sr presentation and portfolio.

**491 Advanced Photographic Arts (5)**

Prereq: 393, portfolio review, and perm. Individual problems and seminars.

**492 Advanced Photographic Arts (5)**

Prereq: portfolio review and perm. Individual problems and seminars.

**493 Advanced Photographic Arts (5)**

Prereq: portfolio review and perm. Individual problems and seminars.

**494 Advanced Publications Photography (5)**

Prereq: portfolio review and perm. Work in photographic communications, principally newspapers and magazines.

**495 Advanced Publications Photography (5)**

Prereq: portfolio review and perm. Work in photographic communications.

**496 Advanced Publications Photography (5)**

Prereq: portfolio review and perm. Work in photographic communications.

**497 Advanced Photoillustration (5)**

Prereq: portfolio review and perm. Investigation of tools and uses of applied photography and special problems of illustration.

**498 Advanced Photoillustration (5)**

Prereq: portfolio review and perm. Investigation of tools and uses of applied photography and special problems of illustration.

**499 Advanced Photoillustration (5)**

Prereq: portfolio review and perm. Investigation of tools and uses of applied photography and special problems of illustration.

## ART HISTORY

**211 History of Art (4)**

Survey of western sculpture, painting and architecture from prehistoric to Early Christian and Byzantine. Art or art history majors should enroll in 211, 212, and 213 in sequence.

**212 History of Art (4)**

Continuation of 211 from the Migration Period of Europe (4th century A.D.) to 16th century. Art or art history majors should enroll in 211, 212, and 213 in sequence.

**213 History of Art (4)**

Continuation of 212 from 17th century Europe to present. Art or art history majors should enroll in 211, 212, and 213 in sequence.

**237 History of Photography (3)**

Prereq: soph rank or perm. Historical development of photography from its inception to present including comprehensive study of artistic and technical developments and of major photographers and movements.

**238 History of Photography (3)**

Prereq: 237. Continuation of 237.

**239 History of Photography (3)**

Prereq: 238. Continuation of 237-238.

**320 Greek Art (4)**

Prereq: 211-213 or perm. Specific developments in period between Minoan/Helladic cultures and those of Alexandrian Empire.

**321 Roman Art (4)**

Prereq: 211-213 or perm. Motifs and concepts ranging from Etruscan artifacts through Hellenistic to advent of Constantine.

**322 Medieval Art (4)**

Prereq: 211-213 or perm. Painting and sculpture from age of Constantine to art of Giotto.

**323 Italian Renaissance Art (4)**

Prereq: 211-213 or perm. Monuments, motifs, and their implications in 15th century Italy.

**324 Northern Renaissance Art (4)**

Prereq: 211-213 or perm. Monuments, motifs, and their implications in Renaissance France, England, the Low Countries and Reformation Germany.

**325 Art of High Renaissance and Mannerism (4)**

Prereq: 211-213 or perm. Art and theory of 16th century.

**326 Baroque and Rococo Art (4)**

Prereq: 211-213 or perm. Painting and sculpture of 17th and 18th centuries.

**327 Art of the Nineteenth Century (4)**

Prereq: 211-213 or perm. European painting and sculpture from time of French Revolution through Symbolism.

**328 Modern Art (4)**

Prereq: 211-213 or perm. Major movements in European painting and sculpture from 1900-1945.

**329 The Arts of the United States (4)**

Prereq: 211-213 or perm. Specific problems and their patterns from Colonial Era.

**330 The Arts of the Orient (4)**

Prereq: 211-213 or perm. Selected studies of arts of India, China, and Japan.

**331 Pre-Columbian Art (4)**

Prereq: 211-213 or perm. Selected studies of Indian architecture, sculpture, ceramics, and painting from Meso-America and South America from 300 B.C. to 1500 A.D.

**332 African Art (4)**

Prereq: 211-213 or perm. Selected studies of traditional sub-Saharan West and Central African art.

**333 Ancient Near Eastern Art (4)**

Prereq: 211-213 or perm. Motifs and monuments of Egypt, Mesopotamia, Assyria, and Babylonia.

**340 Art and Ideas in Painting (4)**

Prereq: sr rank, 211-213, and 1 art history course or perm. Examination of the approach of painters of western art to their work. Non-historical in nature, using subject matter as framework and foundation with ideas and concepts concerning the creative act and artist/work-of-art relationship.

**350 Principles of Architecture (4)**

Introduction to styles, theories, and structural principles of architecture.

**351 Ancient Architecture (4)**

Survey of architectural monuments and their historical settings in Near East, Egypt, Greece, and Rome.

**352 Medieval Architecture (4)**

Survey of architectural monuments and their historical setting in early Christian, Byzantine, Romanesque, and Gothic periods.

**353 Renaissance and Baroque Architecture (4)**

Survey of architects and monuments from 15th through 18th century.

**354 19th and 20th Century Architecture (4)**

Survey of architects and monuments from historical revival styles through recent stylistic trends.

**360 Seminar in Art Historiography (4)**

Prereq: advanced work in art history or perm. Investigation of various methodological approaches to the study of art.

**480 Individual Problems (1-6)**

Prereq: perm. Projects, ideas or explorations that cannot reasonably be made within regular course structures. Requires perm of faculty member prior to registration.

**481 Individual Readings (1-6)**

Prereq: perm. Reading and research in art history, which cannot reasonably be made within regular course structures. Requires perm of faculty member prior to registration.

galaxy; pulsars; quasars; other galaxies; expanding universe; theories of cosmology. Also listed as PSC 100. 4 lec.

**100B The Universe (4)****(2N)**

Designed for nonscience majors with minimal mathematical background. Descriptive study of astrophysical universe. Fundamental concepts and physical principles; life cycle of stars; explanation of recent findings including pulsars, quasars and black holes, theories of cosmology describing beginning and end of our universe. Other possible topics include UFOs, space exploration and possibility of extraterrestrial life. Also listed as PSC 100B. 4 lec.

**100D Moons and Planets: The Solar System (4)****(2N)**

Look at solar system, sun, moons, and planets, through eyes of modern science. Space program, Apollo to present, and what we have learned from it. Selected readings and NASA films. 4 lec. Also listed as PSC 100D.

**300 The Solar System (3)**

Prereq: mathematics through trigonometry, and elementary physics. Apparent motions of sun, moon, planets, and stars. Relations between apparent positions of celestial objects and time, latitude, and longitude of observer. Principles of navigation. Temperatures, atmospheres, and surface conditions of other planets. Life on other planets.

**301 Sun and Stars (3)**

Prereq: 300. Review of radiation laws as needed in astronomy. Physical properties and energy generation in the sun. Origin and evolution of solar system. Methods of determining diameters, temperatures, densities, and composition of stars.

**302 Stars and Galaxies (3)**

Prereq: 301. Variable stars, novae, supernovae, pulsars, neutron stars, and black holes. Origin and evolution of stars. Structure of our galaxy. Physical properties of other galaxies, and their arrangement in space. Quasars. Expansion of the universe. Theories of cosmology.

**310 Astronomy Laboratory (1)**

Prereq: 300 or with 300. Observational work at telescope. Computations of coordinates of celestial objects. Practice with marine sextant and aviation octant. Solution of navigation problems.

**311 Astronomy Laboratory (1)**

Prereq: 300 and 310. Observational work at telescope, with emphasis on moon and planets. Measurement of astronomical photographs and spectrograms. Reduction of astronomical data.

**312 Astronomy Laboratory (1)**

Prereq: 301 and 311. Observational work at telescope, with emphasis on stars, nebulae, and galaxies. Measurement of stellar spectrograms for determination of radial velocity. Spectroscopic measurement of velocities of recession of galaxies and quasars.

**320 Elements of Navigation (2)**

Prereq: 300, mathematics through trigonometry. (on demand) Basic navigational astronomy; use of sextant and nautical almanac; line-of-position method as used in air and surface navigation.

**350 Celestial Mechanics (4)**

Prereq: 301, differential equations. (on demand) Differential equations of planetary motion; vector treatment of 2-body problem; determination of orbits of planets and satellites.

**450 Studies in Astronomy (1-6, arranged)**

Prereq: 302.

## ASTRONOMY

**100 Survey of Astronomy (4)****(2N)**

Nontechnical course requiring no physics or mathematics background. Topics covered: risings and settings of sun, moon, and stars for various latitudes; causes of seasons; learning to know constellations; physical properties of planets; life on other planets; comets, meteors, and meteorites; physical properties of sun and stars; origin and evolution of stars; structure of our

## AVIATION

Due to changes in economic conditions, it may be necessary to adjust the special fees for flight courses. Current information can be found in the Schedule of Classes.

**110 Private Pilot Ground Instruction (4)**

40 hrs ground instruction covering radio navigation, meteorology, FAA regulations, communications, aircraft construction, and performance data to meet requirements of private pilot's written exam. 2 lec.

**240 Private Pilot Flight Course (4)**

Prereq: FAA written passed or perm. 40 hrs flight training and related lectures including primary flight maneuvers and cross-country flying. Meets requirements for private pilot's certificate. 1 lec, 3 lab. Course fee \$1,285.

**310 Commercial Pilot Ground Instruction (4)**

Prereq: Private pilot's certificate or perm. 40 hrs ground instruction covering advanced radio navigation, FAA regulations, aircraft construction, performance data, and instruments to meet requirements of commercial written exam. 2 lec.

**340 Commercial Flight Course, Part I (4)**

Prereq: Private pilot certificate. 40 hrs flight training consisting mainly of cross-country. 3 lab. Course fee \$1,200.

**343 Commercial Flight Course, Part II (4)**

Prereq: Private pilot certificate and 340 or perm. 35 hrs flight training consisting mainly of solo cross-country to build flying time toward higher rating. 5 hrs complex airplane time included. 3 lab. Course fee \$1,300.

**350 Instrument Ground Instruction (4)**

40 hrs ground instruction on flying solely by reference to instruments to meet requirements for instrument pilot written exam. Included are maneuvers, navigation, meteorology, radio procedures, and instrument interpretation. 2 lec.

**400 Commercial Flight Course, Part III (4)**

Prereq: Commercial pilot certificate or perm. 35 hrs of instruction of flight by sole reference to instruments. 3 lab. Course fee \$1,300.

**410 Fundamentals of Aviation for Teachers (4)**

Prereq: 110 or perm. Comprehensive course covering aeronautical knowledge required of private pilot: navigation, weather, federal regulations, theory of flight, aircraft performance, radio communications and navigation, and fundamentals of instruction for teachers of aviation ground instruction courses.

**420 Commercial Flight Course, Part IV (4)**

Prereq: FAA written passed or perm. 40 hrs of flight instruction including 10 hrs in complex airplane. 3 lab. Course fee \$1,600.

**430 Multi-Engine Flight Course (2)**

Prereq: Pilot's certificate and perm. 12 hrs of procedures with both engines operative, with 1 engine inoperative (feathered), single engine speeds, effects of airplane configuration on engine-out performance. Enroute operations, single engine approaches and landings. 2 lab. Course fee \$1,220.

**440 Flight Instructor Ground Instruction (4)**

Prereq: commercial pilot certificate or perm. 40 hrs review of all previous instruction with emphasis on how to instruct, and breakdown of maneuvers. Covers requirements for flight instructor written exam. 2 lec.

**445 Flight Instructor Course (3)**

Prereq: Commercial pilot's certificate and perm. 20 hrs review of commercial course with emphasis on how to instruct and analysis of maneuvers. 3 lab. Course fee \$800.

**450 Instrument Instructor Ground Instruction (3)**

Prereq: Commercial certificate. 30 hrs review of instrument course with emphasis on how to instruct instrument flying. Covers requirements for instrument written exam. 2 lec.

**455 Instrument Instructor Flight Course (3)**

Prereq: Commercial certificate. 20 hrs of review of instrument course with emphasis on how to instruct on instruments. 3 lab. Course fee \$780.

**460 ATP Ground Instruction (4)**

Prereq: FAR 61.153. 40 hrs advanced course placing major emphasis on specific requirements and duties of airline transport

pilots in accordance with Federal Aviation Regulations. Provides aeronautical requirements for airline transport pilot written exam. 2 lec.

**470 ATP Flight Course (2)**

Prereq: FAR 61.155. 15 hrs taking practical and operational approach to problems that arise in planning and conducting air transport operations. 3 lab. Course fee \$1,675.

**475 Internship in Aviation Operations (1-15)**

Prereq: perm. Internship program in selected fields of aviation under direction of faculty member. Specific fields could be: (1) serving as intern in commercial flight operation as copilot or as flight instructor; (2) serving as intern in airport operation as assistant to airport manager, or (3) special service flying such as medical supplies, fire-fighting, cloud seeding, FAA observers, etc.

## BACTERIOLOGY

See Zoology.

## BIOLOGY

See Botany or Zoology.

## BLACK STUDIES

See Afro-American Studies.

## BOTANY

For students interested in careers in botany, environmental biology, natural resources, conservation, forestry, field biology, agronomy, horticulture, plant breeding, landscaping, marine biology, cell biology, or agri-business, the Botany Department offers major programs with preparations in the following specializations: botany (major code 2111); forestry (major code 2112); environmental biology-botany emphasis (major code 2113); horticulture (major code 2114); field biology (major code 2115); agri-business (major code 2117); and cell biology (major code 2118). For further information relating to these programs and suggested curricula, please see the section entitled Special Curricula, under the College of Arts and Sciences, in this catalog.

The requirements for the botany major are given below. For the A.B. degree, a minimum of 45 hours in departmental courses is required; for the B.S. degree, a minimum of 55 hours in departmental courses is required. Both A.B. and B.S. degree candidates must complete the following departmental courses: BOT 110, 111, 307, 308, 309, 310, 405, 424, 425, 431, 475.

Nondepartmental courses required for both the A.B. and B.S. degrees are: CHEM 141, 142, 143, 301, 302, 303, 304, ZOOL 151, 325; PHYS 201, 202, 203, and MATH 163A, 163B, or MATH 250A, 250B, or MATH 263A, 263B. (The student should be certain to see an advisor before making a choice of math sequence.)

In addition to the major in botany, the department also offers a minor. The requirements for a botany minor consist of a minimum of 28 credit hours of coursework in botany, including 110 and 111, and at least two courses at the 300 level or above.

A double major in botany and economics is available also for the preparation of biologists with a strong background in economics, or, conversely, economists with training in biology,

for positions in business and governmental agencies. Prelaw students who plan careers in environmental law should find this program particularly suited for their goals. The A.B. degree in botany for the botany-economics double major program requires 45 hours in botany. The following courses are mandatory: 110, 111, 307, 308, 309, 310, 331 (or 431), 424, and 425. Additional courses from the following are recommended: 247, 248, 250, 311, 312, 313, 420, 426, 460, and 475. Nondepartmental courses required are: CHEM 141, 142, 143, 301, and 303. The A.B. degree in economics requires a minimum of 40 hours in economics, with the following courses mandatory: 101, 102, 303, 304, 381, and 385. Additional courses to fulfill the 40-hour requirement are recommended from the following: 305, 313, 316, 333, 351, 371, 380, 430, and 482. The usual College of Arts and Sciences requirements (including language) must also be satisfied.

### 101 Principles of Biology (5) (2N)

For nonscience majors. Introduction to principles and concepts of life; interrelationships of structural, functional, reproductive, evolutionary, and ecological principles related to cells and organisms. (Same as ZOOL 101.) Credit not allowed for both 101 and 110. 3 lec, 2 lab.

### H101 Principles of Biology (5)

Prereq: perm. Introduction to principles and concepts of life; emphasis on interrelationships of structural, functional, reproductive, evolutionary, and ecological principles related to cells and organisms. Designed for students of unusual curiosity who may not intend to follow a botanical, zoological, or medical curriculum. 3 lec, 4 lab.

### 102 Plant Biology (5) (2N)

Prereq: 101 or ZOOL 101 or perm. For nonscience majors. Morphology and anatomy of seed plants as related to function. Survey of plant kingdom with emphasis on evolutionary relationships and life histories of selected plant groups. Credit not allowed for both 102 and 111. 3 lec, 2 lab.

### 103 Biology, Plants, and Man (4) (2N)

Prereq: 101 or ZOOL 101 suggested. Interrelationships of plants and man from both historical and modern points of view, origins of agriculture and civilization, tropical and temperate food plants, medicinal plants, drug plants, destruction of environment, and its ultimate effect on food plants. 3 lec, 1 disc.

### 110 Introduction to Botany (6) (2N)

(fall) *J. Mitchell, staff*. For botany and other science majors, preprofessional students, and science modular students. Introduction to fundamental biological principles as they affect plant science. Structure and function of cells and cell organelles, classical and molecular genetics, evolution and ecology. (Same as ZOOL 150.) Credit not allowed for both 101 and 110 or for both 110 and ZOOL 101. 4 lec, 4 lab.

### 111 Introduction to Botany (6) (2N)

Prereq: 110 or ZOOL 150 or perm. *J. Graffius*. For botany and other science majors, preprofessional students, and science modular students. Introduction to morphology, anatomy, life histories, and reproduction of vascular plants; survey of plant kingdom. Credit not allowed for both 102 and 111. 4 lec, 4 lab.

### 180 Local Woody Plants (4)

Field and laboratory study of locally common woody plants as well as some representative nonwoody plants, with emphasis on identification and classification. Introduction to use of keys in woody plant identification, and to basic ecological concepts of plant distribution. Not intended for majors in plant science. 2 lec, 4 lab.

### 185 Local Wildflowers (4)

Field and laboratory study of spring-flowering plants and other representative nonwoody plants of the region, with emphasis on identification and classification. Introduction to techniques of flowering-plant identification and preservation, and to seasonal aspects of plant distribution. Not intended for majors in plant science. 2 lec, 4 lab.

### 247 Vegetation of North America (4) (2N)

Prereq: 1 course biological science or perm. *W. Wistendahl*. Illustrated lecture course considering extensive plant formations with relationship to climate, soil, geographic formations, and influence of man. 4 lec.

### 248 Trees and Shrubs (Dendrology) (5)

Prereq: 111 or with perm, 102. (fall) *R. Rypma*. Collection, identification, nomenclature, classification, ecological relationships, and importance to man of native and introduced woody plants. 3 lec, 4 lab, supplementary field trips.

### 250 Economic and Horticultural Plants (4)

Prereq: 111 or with perm, 102. (fall) *R. Lloyd*. Introduction to origin, evolution, classification, identification, and uses of common horticultural and economic plants of world. 2 lec, 4 lab.

### 252 Basic Horticulture (4)

Prereq: 111 or with perm, 102. (fall) *J. Mitchell and W. Wistendahl*. Integration of principles of plant anatomy, morphology, physiology, and classification as they relate to growth responses and propagation of horticultural plants. 3 lec, 2 lab.

### 305 Plant Propagation (4)

Prereq: 252 or perm. *R. Rypma*. Principles and practices in sexual and asexual propagation of horticultural crops; time, manner, and material for cutting, budding, grafting, and layerage; methods of seed handling as affected by time, temperature, and media; study of types, construction, and management of propagation structures. Special techniques employed in propagation of economic cultivars, specialized plant parts, and treating plant organ and tissue culture. 2 lec, 4 lab.

### 307 Biology of Algae and Mosses (6)

Prereq: 111 or with perm, 102. *J. Graffius*. Comparative studies of phylogenetic relationships, structural adaptations, and life histories of algae and bryophytes. 4 lec, 4 lab.

### 308 Morphology of Vascular Plants (6)

Prereq: 111 or with perm, 102. *G. Rothwell*. Comparative studies of phylogenetic relationships, structural adaptations, and life cycles of fern allies, ferns, gymnosperms, and angiosperms. 4 lec, 4 lab.

### 309 Plant Systematics and Ohio Flora (5)

Prereq: 111 or with perm, 102. (spring) *R. Lloyd*. Principles and methods of systematics and taxonomy; classification, floral biology, and evolution of flowering plants. Lab: identification and classification of spring flora. 3 lec, 6 lab, field trips.

### 310 Biology of Fungi (5)

Prereq: 111 or with perm, 102. *J. Cavender*. Morphology and life history studies of selected fungi of major groups; collection, isolation, and growth of selected fungi; fungal activities. 3 lec, 4 lab.

### 311 Biology and Human Affairs (3)

Prereq: 1 course in biology. *Staff*. Discussions of impact of modern biological science upon human problems in biological, social, moral, and political areas.

### 312 Plant Anatomy (5)

Prereq: 111 or with perm, 102. *G. Rothwell*. Structure, development, and systematic anatomy of vascular plants. 3 lec, 4 lab.

### 313 Special Topics in Botany (1-6)

Prereq: perm. Current and/or special topics in botany.

### 313B Supervised Study (1-3)

Prereq: botany majors and perm.

### 313C Bioethics (4)

Prereq: jr or sr rank suggested. (fall) *L. Larson*. Discussions of contemporary bioethical issues in life sciences relating to genetics, birth control, behavior control, experimentation on human subjects, health care, death, dying, abortion, and general impact of science and technology on human values.

### 315 Greenhouse Management and Techniques (2, max 8)

Prereq: 252 and jr or sr rank; prehorticulture emphasis. *R. Rypma*. Techniques for growing and culturing common horticultural



tural plants; experience in planting, fertilization, watering, fumigation, and using special equipment and chemicals utilized in typical greenhouse operations. Maintenance of equipment used in greenhouse operations. 4 lab.

### 331 Plant Cytogenetics (3)

Prereq: 111 or with perm. 102. *J. Braselton*. Chromosomal theory of heredity; meiosis and mitosis; variations in chromosome numbers, structure, and behavior; genetic principles in relation to plant breeding. Credit not allowed for both 331 and 431. 3 lec.

### 368 Teaching of Biology (4)

Prereq: 18 hrs biological sciences. *L. Larson*. Discussion, demonstration, and practice of goals and skills in biological teaching. Written and verbal evaluation and criticism of journals, texts, and A-V programs. Analysis and criticism of lab experiments. 2 lec, 4 lab.

### 404 Undergraduate Research (2-6)

Prereq: 24 hrs botany and perm. Independent research under supervision of faculty member.

### 405 Discussions About Biology (2)

Prereq: 15-20 hrs botany and/or zoology. Discussions of experimental problems and approaches focusing on synthesis of ideas and principles in biological fields.

### 410 Plants and Soil (4)

Prereq: 111 or with perm. 102; jr or sr rank. *J. Cavender*. Soil as environment for plant growth; interrelationships between plant and soil; role of soil organisms in cyclic processes; building and maintenance of soil fertility; relationships between soil and health of plants, animals, and man. 3 lec, 2 lab.

### 412 Plant Pathology (5)

Prereq: 310; jr or sr rank. *C. Miller*. Theory of pathogenesis; types of pathogens and plant diseases; significance of plant disease in nature and horticulture; plant disease control. 3 lec, 4 lab.

### 420 Fresh-Water Algae (5)

Prereq: 307 or 111 or 102, with perm. *J. Graffius*. Taxonomy and ecology of fresh-water algae, with emphasis on identification and distribution of common or representative genera. 3 lec, 4 lab.

### 424 Plant Physiology (6)

Prereq: 111 or 102; organic chemistry recommended. (winter) *L. Larson*. Basic chemical and physical aspects of plant processes: photosynthesis, respiration, mineral nutrition, transport, nitrogen metabolism, water relations, and growth. 3 lec, 4 lab.

### 425 Plant Ecology (5)

Prereq: jr or sr rank (fall) *I. Ungar, W. Wistendahl*. Effect of environmental factors as related to structure and function of plant communities. 3 lec, 4 lab, 1 Saturday field trip.

### 426 Physiological Plant Ecology (5)

Prereq: sr rank, and 425 (spring) *I. Ungar, W. Wistendahl*. Analysis and interpretation of ecological problems. 3 lec, 4 lab, 1 Saturday field trip.

### 431 Cytology (5)

Prereq: 10 hrs biological science, 1 yr chemistry, ZOOL 325 recommended. (winter) *J. Braselton*. Gross and fine structure of cells, mitosis, meiosis, morphology, chemistry, behavior of nuclear and cytoplasmic constituents. Credit toward major not allowed for both 331 and 431. 3 lec, 4 lab.

### 432 Microtechnique (5)

Prereq: sr rank and perm. *J. Braselton*. Preparation of plant tissues for microscopic study. 6 lab.

### 450 Honors In Biology (5)

Prereq: perm. Central ideas of modern biology with focus on several appropriate and current problems. Creative spirit in biology and in science as a whole. Similarities and differences of process of discovery in art, philosophy, and science. Primarily a reading course with discussions within the group.

### 460 Paleobotany (6)

Prereq: perm. *G. Rothwell*. Morphology and evolution of representative fossil plant groups. 3 lec, 6 lab.

### 475 Plant Speciation and Evolution (3)

Prereq: sr in botany, biology, zoology, or perm. *R. Lloyd*. Principles of evolution and speciation of flowering plants and ferns with emphasis on nature of plant species, divergence, isolation, hybridization, and nature of genetic systems therein. 3 lec.

### 494 Honors In Botany (2-15)

Prereq: perm. Undergraduate research by qualified students.

### 498 Internship (1-15)

Prereq: perm.

## BUSINESS ADMINISTRATION

The general business major prepares professionals on a broad basis for a business career.

In addition to the B.B.A. degree requirements, a student majoring in general business must complete 20 hours from College of Business Administration course offerings at the 300 or 400 level from the following area/disciplines: accounting, quantitative methods, management, business law, finance, marketing, production, business administration, and economics.

### 101 Business and Its Environment (4)

Nature of business and of economic, social, and political environments of the business firm. Emphasis on ways in which such surroundings affect business policies and operations.

### 111 History of American Business (4)

Origins and development of American business, emphasizing interrelations among business, the economy, the society, and the polity.

### 310 Production Management (4)

Prereq: jr rank, QM 201, or equiv. Emphasis on organization of production function and its relationship to other management and functional activities.

### 411 Production Planning and Control (4)

Prereq: 310 and perm. Quantitative techniques used in premanufacturing and control phases of production function.

### 412 Production Management Problems (4)

Prereq: 310 and perm. Analysis of production management problems in various industries and technologies.

### 431 Administration of Information Systems (4)

Prereq: sr rank or perm. Information networks and flows in organizations within total-systems framework.

### 445 Small Business Administration (4)

Place and role of small business firms; problems they face; opportunities involved and competitive considerations.

### 455 Studies In Business History (4)

Prereq: jr or sr rank and perm. Case studies of American businessmen and firms since early colonial period, with emphasis on the 20th century. Lessons from the past are examined in relation to present sound business policy.

### 465 Technology and the Environment (4)

Prereq: jr or sr rank and perm. Course is conceptual, interdisciplinary, and future-oriented. Variety of developmental problems and interaction of many technological environments including economic, sociopolitical, and market environments.

### 470 Administrative Policy (4)

Prereq: C B A, sr rank. Integrated application of core studies to nature, functions, and activities of actual business, analyzing objectives, policies and performance — all in relation to outside environment.

**480 Ethics and Morality in Business (4)**

Prereq: jr or sr rank and perm. Combined moral philosophy and personal responsibilities in business; critical analysis of contextual situation where provisional resolutions must be indirectly charted between ethical oughts and economic musts.

**485 Multinational Business (4)**

Prereq: perm. Study of the emergence of U.S. and non-U.S. multinational corporations, the scope of their operations, and their impact on the U.S. economy and consumer.

**497 Independent Research (1-4)**

Prereq: perm. Research in selected fields of business administration under direction of faculty member.

**498 Internship (1-4)**

Prereq: perm.

## BUSINESS LAW

**255 Law and Society (4) (2S)**

Prereq: soph rank. Conceptual approach to origin, nature, structure, functions, and procedures of law with study of contractual relationships.

**356 Law of the Management Process (4)**

Prereq: 255 and jr rank. Conceptual framework of legal nature of organizations, particularly corporations and partnerships; rights, powers, and limits of managers in relation to duties and responsibilities to their organizations, owners, creditors, employees, customers, state, and public.

**357 Law of Commercial Transactions (4)**

Prereq: 255 and jr rank. Legal aspects of commercial paper, consumer credit, and bankruptcy.

**360 Law of Health Care (4)**

Prereq: soph rank or perm. Analysis of public-private constraints in foundation health agencies; experimentation and risk assumption; medical records; hospital liability; governmental regulations.

**370 Environmental Law (4)**

Prereq: jr rank or perm. Legal aspects of both individual environmental and societal environmental rights and duties with respect to constitution, private property, nuisance, negligence, statutes, regulatory agencies, and court decisions. Emphasis upon case study of federal, state, and local laws which shaped existing law and those which are likely to shape future legislative and administrative action.

**442 Law of Property and Real Estate (4)**

Prereq: 255 or perm. Property law as an institution and analysis of creation, transfer, and relation of various legal interests in property, especially land.

**462 Law of Estates and Trusts (4)**

Prereq: 255 or perm. Law as it pertains to decedents' estates including law of wills, intestate succession, and trusts.

**465 Law of Sports (4)**

Prereq: jr rank. Regulations of amateur athletics, public regulation of sports activities, legal relationships in professional sports, enforcement of professional sports contract, liability for injuries, and antitrust aspects of sports activities.

**475 Government and Business (4)**

Prereq: 255 or perm. Governmental regulatory environment of business including analysis of statutes, court decisions, and rulings affecting policy decisions.

**491 Seminar (3, 4 or 5)**

Prereq: 255 or perm. Selected topics of current interest in business law area.

**493 Readings (1-5)**

Prereq: perm. Readings in selected fields of business law. Topics selected by students in consultation with faculty member.

**497 Independent Research (1-5)**

Prereq: perm. Research in selected fields of business law under direction of faculty member.

## BUSINESS MANAGEMENT TECHNOLOGY

The following courses for the A.A.B. degree program in business management technology are available only on the Chillicothe campus. These courses are not open to College of Business Administration students.

**110 Introduction to Management (4)**

Nature of managerial concepts, managerial functions, and organizational structure, with emphasis on current issues.

**130 Business Machine Computation (3)**

Application of mathematical procedures to typical accounting, financial, and other business problems. Includes study of essentials of business arithmetic; simple, periodic, and compound interest; values; payrolls; commission; pricing; and accounting mathematics.

**140 Concepts of Marketing (4)**

Introduction to problems of manufacturers, wholesalers, and retailers as they relate to modern marketing, the market, and the product.

**150 Elements of Supervision (3)**

Concepts of modern-day office supervision. Emphasis on supervisor's major functions and development of sensitivity to human facets in management, using behavioral science findings.

**189 Independent Study (1-5)**

Projects concerning business technology explored with instructor on 1-to-1 basis. Studies selected in subject areas in business field. May be repeated up to 5 credit hrs.

**203 Business Career Profiles (3)**

Practical approach to better understanding by students of what is expected of them by management and what they can expect from management on any job or in any working situation.

**210 Managing Finance in Business (4)**

Introduction to basic concepts, principles, and analytical techniques of financing. Emphasis on planning and managing assets.

**220 Concepts of Purchasing Management (4)**

Analysis of purchasing operation's structure and procedure. Descriptions of quality, quantity, value analysis, sources of supply, and procurement controls. Vendor/buyer relationships, make-or-buy decisions, inventory control, buyer training, materials handling, records, and budgets.

**230 Concepts of Sales (3)**

Policies and procedures pertaining to production planning, pricing, choice of market, planning sales effort, and control of sales operations. Personality development and role of selling in society, careers, and psychology and philosophy as related to selling.

**240 Concepts of Audience Analysis (3)**

Development of knowledge of behavior content of marketing in consumer fields. Examination of applicable theory and research findings and concepts provided by psychology, sociology, anthropology, and marketing. Stress on conceptual models of buyer behavior based on sources of influence.

**250 Practical Personnel Procedures (3)**

Hiring, training, assignment of work, employee counseling, promotion, wage and salary administration. Leadership, motivation and direction of employees toward management/employee-oriented goals.

**260 Business Report Writing (4)**

Practice in planning and writing effective business letters, memoranda, and reports.

**270 Advertising Concepts (3)**

General course in advertising which emphasizes psychology, advertising agency, media research, brands, and labels.

**275 Managerial Planning (4)**

Applications of planning and forecasting techniques to business situations. Computer-assisted techniques used to analyze cases and problems.

**280 Concepts of Labor and Management Relations (4)**

Analysis of bargaining requirements and methods, agreement development and administration and trends in collective bargaining.

**285 Government and Business (3)**

Business and government relations, with emphasis on analysis of selected areas involving public policy and business.

**289 Special Topics (1-5)**

Advanced projects concerning business technology explored with instructor on 1-to-1 basis. For advanced students only. May be repeated to 5 credit hrs.

## CHEMISTRY

A student who completes the requirements for the B.S. degree with a major in chemistry is eligible for professional status in the American Chemical Society in the minimum period of two years of professional experience after graduation. Completion of the minimum requirements for the A.B. degree with a major in chemistry does not qualify a student for certification to the society.

Students who wish to obtain state certification to teach high school chemistry may do so by completing the A.B. or B.S. degree programs, described in the following sections. To do so also requires completion of professional education and general education courses, as described in the *College of Education* section of this bulletin. Students pursuing this option not only need to maintain contact with their Chemistry Department advisors, but also need to obtain further information concerning certification requirements from the College of Education, Room 124, McCracken Hall. Students may also attain certification to teach high school chemistry through B.S.Ed. programs with a major or minor in chemistry, as described in the *College of Education* section of this bulletin.

Students having foreign language requirements should take German or Russian. Those anticipating graduate study should be aware that graduate schools generally require a reading knowledge of one or more foreign languages; German and/or Russian is recommended. Details of the M.S. and Ph.D. programs are given in the Graduate Bulletin.

A ten-dollar breakage card will be required for all chemistry laboratory courses, the unused portion of which will be refunded.

Completion of the A.B. or B.S. degree requirements automatically completes the requirement of the College of Arts and Sciences for at least nine hours in the major at the junior-senior level.

### Chemistry Major

(Major Code #3311)

The major requirement for the B.S. degree includes the following: 141-142-143, 305-306-307, 308-309, 400, 453-454-455, 456-457, 476, 484-485, a course in biochemistry (489 or the full sequence 490-491-492), and three additional hours (other than 499) above 400. Extradepartmental requirements include MATH 263 A B C and PHYS 251-252-253, which should be completed by the end of the second year. ENG 172 and 305 are also required. The B.S. degree program is chosen

by students contemplating entrance into graduate programs in chemistry or employment in chemical industry.

The major requirement for the A.B. degree includes the following: 141-142-143, 301-302 or 305-306-307, 303-304 or 308-309, 325 or 484-485, 351 or 453-454-455, 476, and a course in biochemistry. A full year's work is required in at least one of the following fields: analytical (143-484-485), organic (305-306-307), or physical (453-454-455), or biochemistry (490-491-492). ENG 172 and 305 are also required.

### B.S. in Forensic Chemistry

(Major Code #3310)

The B.S. degree in forensic chemistry is a four-year program. Forensic chemistry is the application of chemistry and related sciences to criminal investigation. The program prepares students to work in modern crime laboratories or other law enforcement agencies such as FDA, OSHA and EPA or to pursue graduate work in forensic chemistry or forensic sciences.

The major requirements for the degree include CHEM 141, 142, 143, 301, 302, 303, 304, 351, 460, 483, 484, 485, 487, and one course to be selected from CHEM 330, 400, 476, 479, 486, 489, 490, and 499. Extradepartmental requirements are ART 191; ENG 172 and 305; LET 100, 120, 140, 200, 250, and 260; MATH 163A and 163B; PHYS 201, 202, and 203; and ZOOL 150, 300, and 364.

Students interested in the program should consult the Director, Forensic Chemistry Program, Chemistry Department, for advance advising and schedule planning.

### B.S. in Industrial Hygiene

(Major Code #3309)

Consult the Index under "Industrial Hygiene, Courses in" to locate the description of this program.

**115 Preparation for College Chemistry (2)**

Prereq: fr only, or perm. (fall, spring) For students who have not had high school chemistry or have had inadequate preparation to enter regular chemistry sequence. Material presented includes metric system, atomic and molecular structure, formulas, equations, states of matter, and problem solving. Will not satisfy any part of natural science requirement of College of Arts and Sciences. 2 lec.

**121 Principles of Chemistry I (4) (2N)**

(fall, winter) Introduction to chemistry through study of atomic and molecular structure, periodic table, and states of matter. Recommended for students in College of Engineering and Technology (except chemical and mechanical engineers), College of Education (except B.S.Ed. majors in biological science, chemistry and physics), and other programs requiring only 1 yr of chemistry. Credit not allowed for both 121 and 141. 3 lec, 3 lab.

**122 Principles of Chemistry II (4) (2N)**

Prereq: 121 or perm. (winter, spring) Introduction to descriptive inorganic chemistry through study of solutions and concept of equilibrium. Credit not allowed for both 122 and 142. 3 lec, 3 lab.

**123 Principles of Chemistry III (4) (2N)**

Prereq: 122 or perm. (spring, fall) Designed to survey organic chemistry and biochemistry and their impact upon man's daily existence. 3 lec, 3 lab.

**141 Fundamentals of Chemistry I (5) (2N)**

(fall, winter, summer) General course in fundamental chemical principles. Atomic structure, periodic classification, bonding, mole concept, and stoichiometry with problem solving. Recommended for majors in chemistry, chemical engineering, mechanical engineering, botany, zoology, medical technology, secondary education (B.S.Ed. in biological sciences, chemistry and physics), and preprofessional (biological science) areas. Credit not allowed for both 121 and 141. 4 lec, 3 lab.

**142 Fundamentals of Chemistry II (5) (2N)**

Prereq: 141 or perm. (winter, spring, summer) Introduction to thermodynamics and chemical equilibrium through study of solutions with problem solving. Credit not allowed for both 122 and 142. 4 lec, 3 lab.

**143 Quantitative Analysis (5) (2N)**

Prereq: 142 or perm. (spring, fall) Introduction to quantitative techniques to include volumetric and gravimetric methods of analysis. 3 lec, 1 recit, 3 lab.

**301 Organic Chemistry (3)**

Prereq: 123 or 143 or perm. (fall, summer) Designed for students who are not B.S. chemistry majors and who do not require a full-year course in organic chemistry.

**302 Organic Chemistry (3)**

Prereq: 301. (winter, summer) Continuation of 301. See 301 for description.

**303 Organic Chemistry Laboratory (1)**

Prereq: 301 or 305, or with 301. (fall, spring, summer) Designed for students who are not B.S. chemistry majors. 3 lab.

**304 Organic Chemistry Laboratory (2)**

Prereq: 303 and 302 or with 302. (winter, summer) Continuation of 303. See 303 for description. 6 lab.

**305 Organic Chemistry (3)**

Prereq: 143 or perm. Organic chemistry for chemistry majors and other students wishing to acquire a sound knowledge of classical and modern organic chemistry.

**306 Organic Chemistry (3)**

Prereq: 305. Continuation of 305. See 305 for description.

**307 Organic Chemistry (3)**

Prereq: 306. Continuation of 305-306. See 305 for description.

**308 Organic Chemistry Laboratory (2)**

Prereq: 306, or with 306. (winter) Synthesis, purification, and characterization of organic compounds. 6 lab.

**309 Organic Chemistry Laboratory (2)**

Prereq: 308 and 307 or with 307. (spring) Continuation of 308. See 308 for description.

**325 Instrumental Methods of Analysis (4)**

Prereq: 143. (winter) Analytical chemistry course for students not majoring in chemistry, which emphasizes application of instrumental methods to solution of problems in chemical analysis. 3 lec, 3 lab.

**330 Introduction to Toxicology (4)**

Prereq: 302 or 307. (winter) Introduction to chemical, clinical, environmental, and forensic aspects of toxicology, types of poisons, how poisons act, treatment of acute poisoning, and control of poisonous materials.

**345 Chemistry of Photography (4)**

Prereq: 122 or 142 and ART 207. (spring) Basic chemistry of modern and historical photographic and photomechanical materials and processes. 2 lec, 4 lab.

**351 Physical Chemistry (3)**

Prereq: MATH 263B or perm. (fall) For premedicine, B.S.Ed., B.S.I.H., and A.B. chemistry majors. Topics include thermodynamics, thermochemistry, equilibrium, solutions, electrochemistry, and kinetics, with special emphasis on applications in life sciences.

**400 Advanced Organic Laboratory (3)**

Prereq: 307, 309. (spring) Advanced lab techniques and instrumentation. 6 lab.

**420 Chemical Literature (3)**

Prereq: 24 hrs, reading knowledge of German. Instruction in the use of chemical literature and application to scientific writing.

**450 Principles of Quantum Chemistry (3)**

Prereq: MATH 263C or perm. (winter) Introduction to solution of problems concerning molecular structure and spectroscopy in terms of quantum theory.

**453 Physical Chemistry (3)**

Prereq: 143, MATH 263C, PHYS 253. (fall) Calculus-based study of thermodynamics with applications to chemical equilibria.

**454 Physical Chemistry (3)**

Prereq: 453. (winter) Continuation of 453. Thermodynamics of ionic solutions, electrochemical cells, and surfaces. Kinetic theory of gases. Chemical kinetics.

**455 Physical Chemistry (3)**

Prereq: 454. (spring) Continuation of 454. Quantum theory with applications to molecular structure, molecular and resonance spectroscopy including nmr and esr, statistical thermodynamics.

**456 Physical Chemistry Laboratory (2)**

Prereq: 351 or 453. Experimental determination of molecular weights, ionic velocities, composition of azeotropes and complex ions, equilibrium constants, phase rule diagrams, etc. Instrumental procedures include refractometry, polarimetry, viscometry, etc.

**457 Physical Chemistry Laboratory (2)**

Prereq: 456. Continuation of 456.

**458 Chemical Thermodynamics (3)**

Prereq: 455. (spring) Concepts of energy and entropy and their use in predicting feasibility and extent of chemical reactions.

**460 Spectroscopic Methods in Organic Chemistry (3)**

Prereq: 307, 455. (spring) Modern spectroscopic methods as employed in organic chemical research: NMR, IR, UV, ESR, and mass spectrometry.

**471 The Physical Chemistry of Macromolecules (3)**

Prereq: 454. (winter) Effects of structure and molecular weight on physical and chemical properties of macromolecules. Topics include molecular weight distribution, solubility, polymer conformation, different types of polymers, synthesis, and reactions. Both synthetic and natural polymers considered.

**476 Modern Inorganic Chemistry (4)**

Prereq: 351 or 453 or with 351 or 453. (fall) Considers relationship between physical and chemical properties of inorganic substances and nature of bonding and structures involved. 4 lec.

**477 Synthetic Methods of Inorganic Chemistry (2-3)**

Prereq: 476. (winter) Theoretical principles and practices of synthesis, purification, and characterization of inorganic substances. 1 lec, 3-6 lab.

**479 Radiochemistry (4)**

Prereq: 143 or perm. (winter) Applications of isotopes to problems in chemistry; safe handling of radioactive material; detection and determination of radiation. 2 lec, 4 lab.

**480 Advanced Organic Chemistry (4)**

Prereq: perm. (fall) Structural theory, stereochemistry, reactive intermediates, and reaction mechanisms.

**483 Chemical Separation Methods (4)**

Prereq: 143. (winter) Modern methods of separating components of complex mixtures with emphasis on operation and application to analytical chemistry. Topics include liquid-liquid extractions, partition chromatography, ion-exchange, gas-chromatography, high pressure liquid chromatography, exclusion chromatography, and electrophoresis. 3 lec, 3 lab.

**484 Electrochemical Methods of Analysis (5)**

Prereq: 351 or 453. (spring) Modern electrochemical techniques and instrumentation with emphasis on their applications in analytical chemistry. Topics include introduction to electronic circuits and operational amplifiers, potentiometry, specific ion electrodes, DC and AC polarography, pulse polarography, coulometry, chrono-coulometry, cyclic voltammetry, rapid scan voltammetry.

**485 Spectrochemical Analysis (5)**

Prereq: 351 or 453. (fall) Survey of spectrochemical instrumentation with emphasis on their operation and application in

analytical chemistry. Topics include atomic absorption, atomic emission, molecular absorption and molecular emission and will cover emission-absorption phenomena in the X-ray, ultraviolet, visible, and infrared regions of electromagnetic spectrum.

#### **487 Forensic Chemistry (4)**

Prereq: 484 and 485. Survey chemical problems most frequently encountered in a crime laboratory and their currently acceptable solutions, as well as special techniques not covered in other analytical chemistry courses. 3 lec, 3 lab.

#### **488 Chemical Instrumentation (4)**

Prereq: 455. Fundamentals of electronics emphasizing circuitry in modern chemical instruments. 3 lec, 3 lab.

#### **489 Basic Biochemistry (4)**

Prereq: 302 or 307 or perm. (spring) Survey course, including introduction to biochemical concepts and techniques, metabolic pathways, and information storage and transmission, with emphasis on directions of current biochemical research.

#### **489L Biochemistry Laboratory (2)**

Prereq: with or following 489 or 491 or perm. (winter) Modern biochemical lab techniques including chromatography, electrophoresis, measurement of enzyme kinetics and oxidative phosphorylation, amino acid analysis, and calorimetry. 4 lab.

#### **490 Introduction to Biochemistry (3)**

Prereq: 302 or 307. (fall) Macromolecular structure of biomolecules.

#### **491 Introduction to Biochemistry (3)**

Prereq: 490. (winter) Bioenergetics, metabolism, and metabolic control systems.

#### **492 Introduction to Biochemistry (3)**

Prereq: 491. (spring) Complex integrated biochemical systems.

#### **497 Forensic Chemistry Internship (3-10)**

Prereq: sr rank in Forensic Chemistry Program and perm. Supervised work in approved forensic science lab to gain practical experience. Oral and written reports required.

#### **499 Undergraduate Research (as recommended)**

Prereq: jr or sr rank with B average in chemistry or perm. Independent work for qualified upperclass chemistry majors.

## CHINESE

See Foreign Languages and Literatures.

## COMPARATIVE ARTS

Courses in introduction to fine arts and history courses in individual content areas

These two courses are provided for majors in the College of Fine Arts who wish to study the relationship of all the arts, and for all students in the University who wish to elect courses with the basic purpose of understanding their cultural heritage.

CA 117 and CA 118 will be offered each quarter: four quarter hours of credit for each quarter for a total of eight quarter hours.

The courses service the following areas:

- 1 As humanities requirement for College of Fine Arts majors
- 2 As humanities requirements for students in other degree colleges and for transfer students from other universities
- 3 Introductory courses serve as state requirements for certification in the College of Education

#### **117 Introduction to Fine Arts (4) (2H)**

Prereq: open to freshmen Introduction to study of esthetic experience and investigation of concepts of response to that experience as seen from analysis of individual works of art. Ex-

amples drawn from media of painting and sculpture, architecture, theater, music, dance, and film.

#### **118 Introduction to Fine Arts (4) (2H)**

Prereq: 117. Analysis of form, media, and content of major arts stressing interrelationship among the arts through recognition of common art factors.

#### **211 History of Art (4)**

General survey of western sculpture, painting, and architecture from prehistoric times to Early Christian and Byzantine.

#### **212 History of Art (4)**

Continuation of 211, beginning with Migration Period of Europe (4th century A.D.) and proceeding to 16th century A.D.

#### **213 History of Art (4)**

Conclusion of survey sequence, continuing with developments of 17th century Europe to present.

#### **270 History of Theater I (3)**

S. Quinn. Development of theater and drama in western world. 270: prehistoric, Greek and Roman periods; 271: Medieval and Renaissance; 272: from Renaissance to modern. 3 lec.

#### **271 History of Theater II (3)**

Prereq: 270. Continuation of 270. See 270 for description.

#### **272 History of Theater III (3)**

Prereq: 271. Continuation of 270 and 271. See 270 for description.

#### **317 Introduction to Fine Arts (4) (2H)**

Prereq: not open to fr. Analysis of form, media, and content of major arts stressing interrelationships of architecture, dance, dramatic art, music, literature, and painting through recognition of common art factors.

#### **318 Introduction to Fine Arts (4) (2H)**

Prereq: 317, not open to fr. Analysis of form, media, and content of major arts stressing interrelationships of architecture, dance, dramatic art, music, literature, and painting through recognition of common art factors.

#### **320X Fine Arts – Florence (1-6)**

Prereq: enrollment in OU Italy Program. (spring) Study of fine arts as seen and performed in city of Florence. Churches, museums, and galleries, along with theatrical and musical events provide examples for study.

#### **321 History and Literature of Music (3)**

Prereq: MUS 103. R. Wetzel. History of music with survey of musical literature to 1450.

#### **322 History and Literature of Music (3)**

Prereq: 321 or MUS 321. R. Wetzel. History of music with survey of musical literature, 1450-1720.

#### **323 History and Literature of Music (3)**

Prereq: 322 or MUS 322. R. Wetzel. History of music with survey of musical literature, 1720 to present.

#### **327 Cultural Traditions and the Arts (4)**

(fall) Principal styles of western art as mirrored in selected masterpieces of architecture, sculpture, painting, music, and literature. Specific works of art examined in relationship to one another and against background of ideas that animated life of their times. (Greek, Roman, Medieval)

#### **328 Cultural Traditions and the Arts (4)**

(winter) Principal styles of western art as mirrored in selected masterpieces of architecture, sculpture, painting, music, and literature. Specific works of art examined in relationship to one another and against background of ideas that animated life of their times. (Renaissance, Baroque)

#### **329 Cultural Traditions and the Arts (4)**

(spring) Principal styles of western art as mirrored in selected masterpieces of architecture, sculpture, painting, music, and literature. Specific works of art examined in relationship to one another and against background of ideas that animated life of their times. (19th & 20th centuries)

**350 Principles of Architecture (4)**

Introduction to styles, theories, and structural principles of architecture.

**351 Ancient Architecture (4)**

Survey of architectural monuments and their historical settings in Near East, Egypt, Greece, and Rome.

**352 Medieval Architecture (4)**

Survey of architectural monuments and their historical setting in Early Christian, Byzantine, Romanesque, and Gothic periods.

**353 Renaissance and Baroque Architecture (4)**

Survey of architects and monuments from 15th through 18th century.

**354 19th and 20th Century Architecture (4)**

Survey of architects and monuments from historical revival styles through latest stylistic trends.

**360J Writing in the Arts (4)****(1J)**

Prereq: 117, 118; major in fine arts; perm. (fall) Critical analyses of form, media, and content in fine arts stressing instruction in critical writing.

**400 Senior Seminar: Comparative Arts (3)**

Prereq: fine arts srs or perm. Designed to increase insight of art majors into all fine arts. Specifically, to understand similarities and differences which exist among several arts through a consideration of basic esthetic concerns.

**470 Greek Theater and Drama (4)**

(fall, odd academic years) Drama, theater, and audience in ancient Greece. 4 lec.

**471 Roman and Medieval Theater (4)**

(winter, odd academic years) Intensive study of drama and theater of Roman and Medieval Europe. 4 lec.

**472 Renaissance Theater and Drama (4)**

(spring, odd academic years) Development of European theater and drama in Renaissance. 4 lec.

**473 Restoration and 18th Century Theater (4)**

(spring, odd academic years) Drama, theater, and audience in England from Restoration through 18th century. 4 lec.

**474 Baroque European Theater (4)**

(fall, even academic years) Detailed study of theater and drama of Europe in Baroque period. 4 lec.

**475 19th Century European Theater (4)**

(winter, even academic years) Major developments in drama and theater in Europe during 19th century. 4 lec.

**476 Contemporary Theater (4)**

(spring, even academic years) Trends and developments in 20th century theater. 4 lec.

**477A American Theater and Drama, 18th and 19th Century (3)**

Prereq: jr or sr. (fall) Beginnings and development of American theater and drama from 1700 to 1900.

**477B American Theater and Drama: 1900-1945 (3)**

Prereq: jr or sr. (winter) New theater movement and drama in United States up to WW II.

**477C American Theater and Drama: 1945-Present (3)**

Prereq: jr or sr. (spring) Theater and drama in United States from WW II to present.

**481 Individual Problems (1-6)**

Prereq: open to srs only; perm.

awarded for only one of the following: CS 201, CS 253, CS 254, ET 240, QM 420. At least eight hours of the 40-hour major requirement must be at the 400 level or above. Every computer science major must pass MATH 163A and MATH 163B or MATH 263A and 263B before the end of the sophomore year. Students who want to take a calculus-based FORTRAN should take ET 240. Those who want to take COBOL should take QM 330. Both ET 240 and QM 330 (except as noted above) may be used for the major requirement. QM 435 will count as a 400-level course for the major requirement. CS 201, CS 201A, or QM 330 may be taken for credit at any time.

**150 Computer Science Survey (3)**

Digital computer machine, its components, operation, control, history, and use. Particular emphasis placed on developing influence of digital computer in business, science, and humanities. Automation examined. BASIC language taught.

**201 Introduction to Computing (5)****(1M)**

Prereq: 3 yrs h.s. math. Algorithms, programs, and computers. Basic programming and program structure. Programming and computing systems. Debugging and verification of programs. Data representation. Organization and characteristics of computers. Survey of computers, languages, systems, and applications. Computer solution of several numerical and nonnumerical problems using 1 or more programming languages. Not open to those with credit for CS 253, 254, ET 240, or QM 420. FORTRAN taught.

**201A Introduction to Computing (5)**

Prereq: major in computer science or mathematics or perm; 3 yrs h.s. math. Basic programming and program structure. Programming and computing systems. Debugging and verification of programs. Data representation. Organization and characteristics of computers. Survey of computers, languages, systems, and applications. Computer solution of several numerical and nonnumerical problems using 1 or more programming languages. PASCAL taught.

**202 Computers and Programming (5)**

Prereq: 201 or 201A. Computer structure, machine language, instruction execution, addressing techniques, and digital representation of data. Computer systems organization, logic design, microprogramming, and interpreters. Symbolic coding and assembly systems, macro definition and generation, and program segmentation and linkage. Systems and utility programs, programming techniques, and recent developments in computing. Several computer projects to illustrate basic machine structure and programming techniques.

**253 Introduction to Digital Computer Programming for Engineering and the Physical Sciences (5)**

Prereq: MATH 263A-B-C. Principles and practice of computer solution of problems involving extensive numerical calculations as found in physical sciences, engineering, and numerical mathematics. Not open to those with credit for CS 201, CS 254, ET 240, or QM 420.

**254 Introduction to Digital Computer Programming for Behavioral, Educational, and Biological Sciences (5)**

Prereq: soph rank & a statistics course. Approximately half of course devoted to programming solutions to problems using FORTRAN, PASCAL, or PL/1. Emphasis on problem analysis, syntax, testing, and debugging of computer solutions to problems. Second half devoted to study of use of statistics packages such as SPSS for solution of statistical problems encountered in study of social, biological, and educational sciences. Not open to those with credit for CS 201, CS 253, ET 240, or QM 420.

**308 Introduction to Discrete Structures (5)**

Prereq: 201 or 201A. Review of set algebra including mappings and relations. Algebraic structures including semigroups and groups. Elements of theory of directed and undirected graphs. Boolean algebra and propositional logic. Applications of these structures to various areas of computer science.

**COMPUTER SCIENCE**

The major requirement for the B.S. or B.A. degree is a minimum of 40 hours not including 100-level courses. Credit will be



**341A Programming Languages (5)**

Prereq: 202 and 308. Formal definition of programming languages including specification of syntax and semantics. Simple statements including precedence, infix, prefix, and postfix notation. Global properties of algorithmic languages including scope of declarations, storage allocation, grouping of statements, binding time of constituents, subroutines, coroutines, and tasks. List processing, string manipulation, data description, and simulation languages. Run-time representation of program and data structures.

**341B Compiler Construction (5)**

Prereq: 341A and 376. Review of program language structures, translation, loading, execution, and storage allocation. Compilation of simple expressions and statements. Organization of a compiler including compile-time and run-time symbol tables, lexical scan, syntax scan, object code generation, error diagnostics, object code optimization techniques, and overall design.

**341C Systems Programming (5)**

Prereq: 341A and 376. Review of batch process systems programs, their components, operating characteristics, user services, and their limitations. Implementation techniques for parallel processing of input/output and interrupt handling. Overall structure of multiprogramming systems on multiprocessor hardware configurations. Details on addressing techniques, core management, system accounting, and other user-related services. Traffic control interprocess communication, design of system modules, and interfaces. System updating, documentation, and operation.

**376 Data Structures (5)**

Prereq: 202, 308 and 341A. Basic concepts of data. Linear lists, strings, arrays, and orthogonal lists. Representation of trees and graphs. Storage systems and structures and storage allocation and collection. Multilinked structures. Symbol tables and searching techniques. Formal specification of data structures, data structures in programming languages, and generalized data management systems.

**381 Information Organization and Retrieval (5)**

Prereq: 376. Structure of semiformal languages and models for representation of structured information. Aspects of natural language processing on digital computers. Analysis of information content by statistical, syntactic, and logical methods. Search and matching techniques. Automatic retrieval systems, question-answering systems. Production of secondary outputs. Evaluation of retrieval effectiveness.

**401 Mathematical Models of Sequential Machines (5)**

Prereq: 308 or MATH 214. Definition and representation of finite state automata and sequential machines. Equivalence of states and machines, congruence, reduced machines and analysis and synthesis of machines. Decision problems of finite automata, partitions with substitution property, generalized and incomplete machines, subgroups and machines, probabilistic automata, and other topics.

**405A Modeling and Analysis of Computer Systems (5)**

Prereq: 381 or 341C, and 200-level statistics. Computer systems characterized by hardware, software, and operating environment. Models of portions or functions of batch, time-sharing, or real-time computer systems developed and analyzed. Simulation, queuing, scheduling methods and probability, and statistics used as tools.

**405B Modeling and Analysis of Computer Systems (5)**

Prereq: 405A. Continuation of 405A.

**409 Theory of Computability (5)**

Prereq: PHIL 320 and CS 308 or MATH 214. Algorithms, recursive functions, Turing machines, decidability. (Same as PHIL 422.)

**410 Formal Languages and Syntactic Analysis (5)**

Prereq: 376. Definition of formal grammars: arithmetic expressions and precedence grammars, context-free and finite-state grammars. Algorithms for syntactic analysis: recognizers, backtracking, operator precedence techniques. Semantics of grammatical constructs: reductive grammars. Floyd productions,

simple syntactical compilation. Relationship between formal languages and automata.

**411 Artificial Intelligence and Heuristic Programming (5)**

Prereq: 376. Definition of heuristic versus algorithmic methods, rationale of heuristic approach, description of cognitive processes, and approaches to mathematical invention. Objectives of work in artificial intelligence, simulation of cognitive behavior, and self-organizing systems. Heuristic programming techniques including use of list processing languages. Survey of examples from representative application areas. Mind-brain problem and nature of intelligence. Class and individual projects to illustrate basic concepts.

**440 Introduction to Data Communications (3)**

Prereq: 341C; perm or course in assembly language. Introduction to theory and methodology of computer-to-terminal and computer-to-computer communications using telecommunications facilities. Following topics considered: a) development of data transmission techniques for use on existing telephone network; b) standards and protocols for orderly control of data links between processors; c) software for support of data transmission.

**481 Information Organization and Retrieval Projects (5-15)**

Prereq: 381, 341B, and perm. Project course in area of information organization and retrieval. Each student must complete project successfully and present results. Lectures by instructor and guest speakers.

**490 Special Problems in Computer Science (1-15)**

Prereq: perm. Special project in 1 of various subfields of computer science or application area studied, investigated and/or solved by individual student or small group working in close relationship with instructor. Suitable problems might include construction of compiler for special purpose artificial language, perfection of computer code to solve some significant problem, or study of coherent subfield of computer science. May be repeated for credit.

**491 Senior Seminar (1)**

Prereq: sr rank. Formal presentation by individual students of specified topics from current literature in computer science and defense of interpretations or conclusions.

**492 Senior Seminar (1)**

Prereq: 491. Continuation of 491. See 491 for description.

**493 Senior Seminar (1)**

Prereq: 492. Continuation of 491-492. See 491 for description.

## DANCE

**101 Dance Technique and Theory I (7)**

Prereq: perm and audition. Basic dance technique, improvisation, and composition.

**102 Dance Technique and Theory II (7)**

Prereq: 101 or equiv. Basic dance technique, improvisation, and composition.

**103 Dance Technique and Theory III (7)**

Prereq: 102 or equiv. Basic dance technique, improvisation, and composition.

**111 Music for Dance I (2)**

Nature and principles of rhythmic structure in dance and music.

**120 Introduction to Dance (3)**

(2H)

(A) Modern dance, (B) ballet, (C) ethnic dance.

**170 Viewing 20th-Century Dance (4)**

(2H)

Art of dance from broad point of view, involving dance viewing, literature, and participation. Deals with esthetic, physiological, social, and cultural aspects of the art.



**201 Intermediate Dance Technique and Theory I (7)**

Prereq: 103 or equiv. Intermediate dance technique, improvisation, and composition.

**202 Intermediate Dance Technique and Theory II (7)**

Prereq: 201 or equiv. Intermediate dance technique, improvisation, and composition.

**203 Intermediate Dance Technique and Theory III (7)**

Prereq: 202 or equiv. Intermediate dance technique, improvisation, and composition.

**212 Dance Notation I (3)**

Prereq: perm of instructor. Principles of dance notation.

**220 Dance Technique II (2) (2H)**

Prereq: 120 or equiv. (A) Modern dance, (B) ballet, (C) ethnic dance.

**240 Practicum in Teaching Dance I (1)**

Prereq: perm of instructor. Observation and assistance in student teaching. May be repeated.

**250 Ethnic Dance of Nonwestern Cultures (2)**

Dances from selected nonwestern cultures with emphasis on style and related folklore.

**255 Ethnic Dance of Western Cultures (2)**

Dances from selected western cultures with emphasis on style and related folklore.

**301 Advanced Dance Technique and Theory I (7)**

Prereq: 203 or equiv. Advanced dance technique and choreography.

**302 Advanced Dance Technique and Theory II (7)**

Prereq: 301 or equiv. Advanced dance technique and choreography.

**303 Advanced Dance Technique and Theory III (7)**

Prereq: 302 or equiv. Advanced dance technique and choreography.

**310 Accompaniment for Dance (2)**

Prereq: 111 or perm. Basic problems in accompanying dance and analysis of dance forms related to accompaniment.

**312 Music for Dance II (2)**

Prereq: 111 or equiv. Also for music composition majors who wish to write for dance theater. History of music for dance. Choreographer-composer relationship.

**320 Dance Technique III (2) (2H)**

Prereq: 220 or equiv. (A) Modern dance, (B) ballet, (C) ethnic dance.

**351 Dance Cultures of the World I (4) (2T)**

Introduction to dance cultures of the world (excluding western art dance). Function of dance in society and its relationship to other arts.

**352 Dance Cultures of the World II (4) (2T)**

Introduction to dance cultures of the world (excluding western art dance). Function of dance in society and its relationship to other arts.

**353 Dance Cultures of the World III (4) (2T)**

Introduction to dance cultures of the world (excluding western art dance). Function of dance in society and its relationship to other arts.

**370 Viewing 20th-Century Dance (4) (2H)**

Prereq: not open to students who have had 170; jr rank and above. Art of dance from broad point of view, involving dance viewing, literature, and participation. Deals with esthetic, physiological, social, and cultural aspects of the art.

**380 Practicum in Dance Production (1)**

Prereq: perm of instructor. Supervised laboratory practice in production and/or performance. May be repeated.

**385 Dance Repertory (1-3)**

Prereq: majors only, audition and perm; may be repeated for total of 12 hrs. Rehearsal and performance of choreographic

works taught by choreographer or reconstructors with aid of video-tape, film, and/or dance scores.

**401 Independent Choreography and Experimental Production I (7)**

Prereq: 303 or equiv. Advanced dance technique and experimental dance production.

**402 Independent Choreography and Experimental Production II (7)**

Prereq: 401 or equiv. Advanced dance technique and experimental dance production.

**403 Independent Choreography and Experimental Production III (7)**

Prereq: 402 or equiv. Advanced dance technique and experimental dance production.

**411 Dance Notation II (3)**

Prereq: 212 or equiv. Continuation of 212 with more advanced reading and writing in notation.

**413 Dance Notation III (3)**

Prereq: 411 or equiv. Continuation of 411 with more advanced reading and writing in notation.

**420 Dance Technique IV (2) (2H)**

Prereq: 320 or equiv. (A) Modern dance, (B) ballet, (C) ethnic dance.

**440 Practicum in Teaching Dance II (2)**

Prereq: 240 and perm. Student teaching under supervision.

**441 Teaching Dance I (3)**

Prereq: perm of instr. Principles of teaching dance and their practical application. Dance for children.

**442 Teaching Dance II (2)**

Prereq: at least 1 qtr of 240; co-req: 440. Principles of teaching dance and their practical application. Dance for adolescents.

**443 Teaching Dance III (2)**

Prereq: at least 1 qtr of 240; co-req: 440. Principles of teaching dance and their practical application. Dance for adults.

**471 History of Dance I (4) (2H)**

Development of western dance in the 19th and 20th centuries with emphasis on ballet and modern dance.

**472 History of Dance II (4) (2H)**

Survey of dance forms and their functions; dance motivation from sympathetic magic in tribal societies; in mythic ritual and in dance-drama.

**473 History of Dance III (4) (2H)**

Survey of dance from early Christian church through Baroque period.

**480 Production Problems for Dance Theater (2)**

Prereq: perm of instructor. Production problems involved with dance events including design, lighting, costume, and administrative procedures.

**490 Independent Study (1-10)**

Prereq: perm of instructor.

## DESIGN TECHNOLOGY

See Industrial Technology.

## ECONOMICS

Two opportunities are open to students interested in majoring in economics: a liberal arts program in the College of Arts and Sciences and a business economics program in the College of Business Administration.

Majors in economics in the College of Arts and Sciences must

complete the A.B. degree requirements of the college and, in addition, take at least 40 hours of economics including ECON 101, 102, 303, 304, 381, and 385.

Students with definite career goals are encouraged to follow a specific track within the economics major in the College of Arts and Sciences. A track identifies those electives which are most relevant to a given career. For example, courses most relevant to the prelaw track include ECON 231, 260, 316, 321, 334, and 352. For the policy analysis track, ECON 231, 311, 312, 313, 315, 322, and 430 are among those recommended. For the business economics track, ECON 231, 260, 305, 306, 320, and 332 are recommended. Additional information can be obtained from the Department of Economics.

A minor in economics consists of a minimum of 28 credit hours in economics including ECON 101, 102, 303, 304, and at least two other courses at the 300 level or above.

Majors in business economics in the College of Business Administration must complete the B.B.A. degree requirements in the college and take at least 20 additional hours of economics including ECON 304 and 385. ECON 380 and 381 may not be counted toward meeting this 20-hour course requirement.

### **101 Principles of Macroeconomics (4) (2S)**

Prereq: MATH 101 or higher math placement. Basic theory of national income analysis. Economic problems and economic institutions of society. May be taken before or after ECON 102.

### **102 Principles of Microeconomics (4) (2S)**

Prereq: MATH 101 or higher math placement. Basic theory and economic analysis of prices, markets, production, wages, interest, rent, and profits. May be taken before or after ECON 101.

### **H201 Economics for Honors Tutorial College Students (4)**

Prereq: enrollment in Honors Tutorial College. Economic theory, history, and statistics. Development of analytical framework for understanding contemporary economic issues and trends. Discussion, problem-solving, reports emphasizing student participation.

### **H202 Economics for Honors Tutorial College Students (4)**

Prereq: H201 Continuation of H201. See H201 for description

### **213 Current Economic Problems (4)**

Prereq: 101 or 301 and 102 or 302. Application of economic theory to current economic problems with emphasis upon public policy implications. Depressed areas, technological unemployment, economic growth, energy, inflation, and agricultural instability considered

### **214 The Economics of War and Peace (4)**

Prereq: 101 or 301 and 102 or 302. Application of techniques of economic analysis to examination of various aspects of national military involvement. Includes consideration of both microeconomic and macroeconomic implications of war and peace

### **231 Government Regulation of Business (4)**

Prereq: 101 or 301 and 102 or 302. Social consequences of monopoly and competition. Various policy prescriptions dealing with economic concentration and market structure considered, as well as impact of these policies on United States business. Government regulation of business reviewed and evaluated

### **260 Money and Banking (4)**

Prereq: 101 or 301. Nature of money, debt, and credit, relations between money, finance, and economic activity

### **301 Introduction to Economic Analysis (4) (2S)**

Prereq: not open to fr or to those who have had 101. Description same as for 101 but content treated at more advanced level

### **302 Introduction to Economic Analysis (4) (2S)**

Prereq: not open to fr or to those who have had 102. Description same as for 102 but content treated at more advanced level

### **303 Microeconomics (4)**

Prereq: 101 or 301, or 102 or 302. Price system as an allocative

mechanism. Price and production policies of individual firms and consumers under alternative market conditions and analysis of these policies on social efficiency of resource allocation. Students expected to have an understanding of elementary algebra and geometry.

### **304 Macroeconomics (4)**

Prereq: 101 or 301, jr; soph if major. Factors determining level of nation's economic activity and responsible for growth and stability in nation's economy. Part of course devoted to measures of national income while remainder consists of analysis of interrelationships among production, price levels, relative prices, employment, and capital formation. Students expected to have an understanding of elementary algebra and geometry.

### **305 Managerial Economics (4)**

Prereq: 102 and QM 201 or equiv. Analysis of decision-making in enterprise; market environment; measurement of influence of policy and nonpolicy variables on sales and costs; sales, cost, and profit forecasting; empirical studies of market structure and pricing; may include various applications of linear programming.

### **306 Economic Environment and Business Forecasting (4)**

Prereq: 101 or 301 and QM 201. National income and monetary and business cycle analysis; forecasting; time series, industry demand and firm sales forecasts.

### **307 History of Economic Thought (4)**

Prereq: 101 or 301 and 102 or 302. Evolution of major economic doctrines: mercantilists and cameralists, physiocrats, Adam Smith and classical school, historical school, Austrian school, Alfred Marshall and neoclassicists.

### **308 Modern Economic Thought (4)**

Prereq: 101 or 301 and 102 or 302. Contributions to economics of most significant writers since Alfred Marshall.

### **309 Institutional Economics (4)**

Prereq: 101 or 301 and 102 or 302. Economic theory and policy contributions of Veblen, Commons, Ayres, and other modern dissenters from traditional economic thought. Principles of technological progress and institutional adjustment; influence on contemporary theory and policy.

### **310 Urban Economics (4)**

Prereq: 101 or 301 and 102 or 302. Application of economic analysis to urban problems; urban economic growth and structure (location patterns, land use and environment, urban transportation, and housing); human resources in urban economies and public sector in a metropolitan context.

### **311 Inequality of Personal Wealth and Income (4)**

Prereq: any course in statistics. Quantitative and qualitative differences in wealth and income between low, middle, and high income groups in a society using historical, statistical, and mathematical techniques. Open to all students.

### **312 Economics of Poverty (4)**

Prereq: 101 or 301 and 102 or 302. Incidence, causes, and consequences of poverty in the United States. Economic theory, history, statistics applied to analysis of poverty-reduction measures.

### **313 Economics of the Environment (4)**

Prereq: 101 or 301 and 102 or 302. Economic analysis of such environmental matters as air, water, and noise pollution, population growth, and land use. Emphasis placed on use of economic theory and empirical research in evaluating environmental policies.

### **315 Economics of Health Care (4)**

Prereq: 101 or 301 and 102 or 302. Allocating resources to health care, economics of hospital care, health care in the U.S. and abroad, supply and demand for nurses, solution of health-care problems: paramedics, prepaid plans, malpractice problems

### **316 Economics and the Law (4)**

Prereq: 101 or 301 and 102 or 302. Economic consideration of property, contracts, crimes and torts, monopoly and antitrust law, taxation, and constitutional issues

### 318 Economics of Sports (4)

Prereq: 101 or 301 and 102 or 302. Growth of sports in the U.S. Organization and structure of sports market. Revenues, costs, and profitability in sports activities. Economic discrimination in sports.

### 320 Labor Economics (4)

Prereq: 101 or 301 and 102 or 302. Economic forces generating modern labor problems. History of labor movement; labor in politics; labor-management relations; wages and full employment.

### 321 Labor Legislation (4)

Prereq: 101 or 301 and 102 or 302. Law bearing upon labor problems. Labor-relations legislation, old-age and unemployment insurance, workmen's compensation, and wages-and-hours legislation.

### 322 Economics of Human Resources (4)

Prereq: 101 or 301 and 102 or 302. Current developments in theory, empirical research, and policy with respect to investment in human resources, economic value of education, manpower programs, and growth.

### 332 Industrial Organization (4)

Prereq: 303 or 305. Market structure, market conduct, and market performance in American industry. Emphasis on developing theoretical framework for evaluating efficiency of industry. Merger activity examined historically and its causes determined. Characteristics of principal manufacturing and processing enterprises evaluated. Contribution of theory of industrial organization to macroeconomic theory and microeconomic theory discussed.

### 333 Government and Agriculture (4)

Prereq: 101 or 301 and 102 or 302. Problems of American agriculture as an industry; economics of government policies and programs; consideration of forces and objectives in policy formation.

### 334 Public Utilities (4)

Prereq: 303 or 305. Economic basis of public utility concept and its relation to business organization. Nature, scope, development, legal organization, and regulation of public utilities.

### 340 International Economics (4)

Prereq: 101 or 301 and 102 or 302. Economic relations of nations of the world. Some of the topics considered are: economic basis for international trade and investment; mechanics of international exchange; tariffs, quotas, exchange control, cartels, and state trading as devices of economic nationalism; and international economic cooperation with special reference to organizations affiliated with United Nations.

### 350 Economic Development (4)

Prereq: 101 or 301 and 102 or 302. Nature of, obstacles to, and future possibilities for economic growth of nations. Special emphasis given to problems of underdeveloped countries. Studies of selected countries utilized.

### 351 Agricultural Development (4)

Prereq: 101 or 301 and 102 or 302. Patterns of agricultural development: technological and demographic changes in agriculture; socio-economic problems; marketing arrangements; case studies of specific agricultural development projects.

### 352 Economic History of the United States (4)

Prereq: 101 or 301 and 102 or 302. Economic factors in development of United States including historical growth of economic institutions such as banking, manufacturing, labor unions, and agriculture, from colonial times to present.

### 353 European Economic History (4)

Prereq: 101 or 301 and 102 or 302. Economic growth of developed countries. Focus on industrial revolutions in Great Britain, France, Germany, Soviet Union, and Japan. Historical experience of these countries related to various theories of economic change.

### 354 Latin American Economic History (4)

Prereq: 101 or 301 and 102 or 302. Origins of economic institu-

tions and policies which affect current problems of economic development, e.g., latifundia system, export of primary commodities, private foreign investment, etc. Interrelationship of economic and political factors. Review of Aztec, Inca, and colonial economies but greater emphasis on developments in 19th and 20th centuries. Introduction to current economic conditions and government policies, foreign exchange shortage, import substitution, urbanization, etc.

### 356 Regional Development (4)

Prereq: 101 or 301 and 102 or 302. Analysis of industrial location and urban growth within regions in connection with community, state, or national planning. Consideration of national policies of aiding special regions, such as Appalachia or the metropolitan central city. North-South issues in U.S. and in other nations.

### 370 Comparative Economic Systems (4)

Prereq: 101 or 301 and 102 or 302. Theoretical and institutional characteristics of capitalism and socialism with specific emphasis on prevailing economic systems in United States, England, and Russia.

### 371 Economics of Planning (4)

Prereq: 101 or 301 and 102 or 302. Economics of planning and its major applications to private and public planning; national, regional, and local planning; centralized and decentralized planning. Procedures and techniques of planning: organization, economic analysis, social accounting, input-output analysis, linear programming, location theory, industrial complex analysis; gravity, potential and spatial models, computers, and planning; research and development.

### 372 Economics of the Soviet Union (4)

Prereq: 101 or 301 and 102 or 302. Operation of economy of Soviet Union. Allocation of resources, planning, saving and investment, agriculture, public finance, price system, and international trade.

### 380 Mathematics for Economists (4)

Prereq: 101 or 301 and 102 or 302 and perm. Mathematical analysis in economics. Calculus and matrix algebra techniques used prominently in economics literature, together with their application to selected problems in economics.

### 381 Statistics for Economists (4)

Prereq: 101 or 301 and 102 or 302. (fall) Statistical methods used in economics with special emphasis on time series and regression analyses.

### 385 An Introduction to Economic Methodology and Research (4)

Prereq: 303 or 305 and 304 or 306 and 381 or equiv. Methods used by economists in investigation of economic problems. First part involves research methods, including contemporary statistical estimation techniques. Second part applies these techniques to investigation of economic phenomena. Types of application include construction and testing of a simple econometric model, estimation of production functions, evaluating theories of factor pricing, estimating social costs of pollution, etc.

### 406 Monetary Theory and Policy (4)

Prereq: 303 or 305 and 304 or 306. Emphasis on monetary economics. Money demand and supply theory and policies for minimizing cyclical fluctuations in economic activity.

### 430 Public Finance (4)

Prereq: 303 or 305 or perm. Role played by government as user of economic resources and redistributor of incomes. Some questions explored: need for government's entry into economy, optimal size of government, selection of tax and expenditures schemes, and effects of government economic activity on private sector.

### 431 Economics of Transportation (4)

Prereq: 303 or 305. Economics of transport pricing; regulations of transport and national transport policy.

### 441 International Economic Policy (4)

Prereq: 340. Current economic developments of foreign and United States economic policy. National and international

aspects of policy will include tariffs, controlled trade, international agreements, commercial treaties, foreign exchange control, clearing agreements, international liquidity controversy, and contemporary balance of payments problems. Roles of institutions such as World Bank and International Monetary Fund discussed with emphasis on interaction of domestic and international goals and policies.

#### **455 African Economic Development (4)**

Prereq: 350 or perm. Economic characteristics of African societies as traditional economies and in process of modernization.

#### **461 Monetary History of the United States (4)**

Prereq: 260 or 304. Correlation of developments in American history with development of monetary institutions, policy, and theory. Evolution of commercial and central banking and relationship of these to economic activity in history of United States.

#### **473 Economics of Southeast Asia (4)**

Prereq: 350 or perm. Economic characteristics, development problems, strategies, and prospects of countries of Southeast Asia.

#### **474 Economics of Latin America (4)**

Prereq: 350 or perm. Economic characteristics of Latin American countries and their trends since WW II.

#### **475 Chinese Economy (4)**

Prereq: 350 or perm. Introductory familiarization with Chinese economy. China's early industrialization, 1880-1931; socialist transformation of each economic sector, 1949-1966; overall performance of Chinese economy and each economic sector; and Maoist revision of orthodox Marxist-Leninist economic doctrines.

#### **482 Introduction to Econometrics (4)**

Prereq: 303 or 305; 304 or 306; and 381 or equiv. Applications of statistics to economics. Design and estimation of economic models. Estimation of simultaneous equation systems.

#### **491 Seminar (3, 4 or 5)**

Prereq: perm. Selected topics of current interest in economics area.

#### **493 Readings (1-15)**

Prereq: perm. Readings in selected fields of economics. Topics selected by student in consultation with faculty member.

#### **493X Readings (1-15)**

Prereq: perm. Study abroad

#### **495 Research (3, 4 or 5)**

Prereq: perm. Methodology, analysis of data and preparation of research findings.

#### **497 Independent Research (1-15)**

Prereq: perm. Research in selected fields of economics under direction of faculty member.

## **EDUCATION**

### **Applied Behavioral Science and Educational Leadership**

Educational Administration

Guidance, Counseling and Student Personnel Services

### **Curriculum and Instruction**

Curriculum and Instruction

Economic Education

Educational Media

Elementary Education

International and Comparative Education

### **Secondary Education**

Special Education

### **Professional Laboratory Experiences**

As specified in the College of Education program section of this catalog, all of the programs and courses in the College of Education have recently been revised to meet new standards of the Ohio State Department of Education. Students are urged to consult their advisors regarding program requirements and scheduling. In particular, students should note that some pairs or groups of professional education courses must be taken concurrently. Questions may be addressed also to the Office of Student Personnel Services, 124 McCracken Hall.

## **Applied Behavioral Sciences and Educational Leadership**

### **Educational Administration**

#### **452 Problems in Administration of Education (1-4)**

Prereq: perm. A variable-topic course for independent study, institutes, and workshops.

### **Guidance, Counseling and Student Personnel Services**

#### **201 Career and Life Planning Seminar (3) (2S)**

Designed to provide knowledge and skill in career and life planning for freshmen and sophomores, especially for those who are undecided about college major and career. Emphasis placed on identifying strengths, clarifying values, exploring career options and in developing decision-making skills.

#### **400 Special Topics in Guidance, Counseling and Student Personnel (1-5)**

Prereq: sr rank and/or perm. Independent studies and specialized projects as well as seminars on special topics for undergraduate students in human relations and/or group dynamics as they relate to guidance, counseling, and/or student personnel services.

#### **410 Human Relations (3) (2S)**

Prereq: sr rank or perm. Study and practice of developing healthy and mutually satisfying interpersonal relationships. Lecture and discussion groups focus on dynamics of human relationships, factors fostering effective interaction, and significance of self concepts in human communication. Topical headings include value clarification, games people play, cueing into affect and feelings, self disclosure and trust, conflict resolution, helper-helper relationships, constructive use of anger, sexuality, prejudice, alcoholism, death and dying, multicultural education, etc.

#### **420 Guidance Practices In Elementary Schools (4)**

Need, scope, and nature of elementary guidance are surveyed. Major emphasis on teacher's guidance responsibilities. Guidance approaches and procedures examined for their usefulness in working with children and parents. Techniques of appraising and changing attitudes and behavior studied. Roles of elementary school counselor and other pupil personnel specialists reviewed for their contribution to growth and development of children. Opportunity for students to achieve greater self-understanding through involvement in self appraisal.

#### **430 Guidance In American Secondary Schools (4)**

Need, scope, and nature of guidance in secondary school. Guidance approaches and procedures examined for their usefulness by teachers and counselors in working with children and parents. Techniques of appraising and changing attitudes and behavior studied. Roles of secondary school counselor and other pupil personnel specialists reviewed for their contribution to growth and development of children. Opportunity for students to achieve greater self-understanding through involvement in self appraisal.

**440 Foundations in Group Dynamics (4) (2S)**

General principles and basic techniques of group dynamics. Interaction in human relations situations that occur in agency settings, business, classrooms, community, resident living, and various types of professionally led training, counseling, and growth groups. Through both cognitive and affective learning opportunities, students learn to understand and use group dynamics principles in areas of personal and professional interaction. Students attend weekly cognitive seminars as well as participate in on-going group laboratory.

## Curriculum and Instruction

### Curriculum and Instruction

**275 Learning Processes in the Classroom (5)**

Prereq: PSY 101 (not available to students who have taken PSY 275). Focuses on major aspects of learning theories, their implication, and applications to classroom situations as well as aspects of measurement and evaluation.

**275L The Learning Process in the Classroom: Clinical Field (1)**

Prereq: admission to teacher education. *J. Brunk, L. Kleisch.* Designed to provide series of coordinated and complementary clinical/field experiences for EDCI 275. Places students in public school settings for observations and experiences related to learning process. Provides 20 of the 300 clinical/field hours required in teacher preparation program.

**401 Advanced Field Experiences – Urban (2)**

Prereq: jr rank. Advanced level field experience required for all middle school, secondary, and special field teaching majors. These experiences provide opportunities to further develop individual knowledge, skills, attitudes, and values relating to content field(s) in which student is preparing to teach.

**461 Introduction to Individualization of Education (4)**

Prereq: perm. (spring) *M. Johnson.* Broad objective of course is for each participant to develop knowledge of major concepts for individualization of education and to demonstrate this knowledge through creation of instructional package ready for implementation in classroom setting. Course focus is to facilitate study of major components necessary for teacher to implement individualized instruction in classroom.

**492 Workshop in Curriculum and Instruction (1-15)**

Prereq: perm. Designed to provide practicing teachers and other instructional personnel with in-service education directed toward their identified needs. Facilitates offering of short courses, workshops, and summer institutes. Areas of concentration currently available: A. Language Arts, B. Social Studies, C. Science, D. Mathematics, E. Reading, F. Kindergarten, G. Individualizing Instruction, H. Team Teaching, I. Interaction Analysis, J. Developing Behavioral Objectives, K. Curriculum Development, L. Interdisciplinary Topics, M. Special Topics, N. Special Education Topics, O. Supervision of Instruction, P. Education for Gifted.

## Economic Education

**346 Economics in the Curriculum (3-5)**

For teacher-education students, provides study of (1) fundamental economic concepts, (2) methods of inquiry employed by economists, and (3) relationship of economics content to classroom instruction and instructional materials. Not recommended for students who have completed ECON 101 and 102.

**400 Public Attitudes Toward Business (4)**

Prereq: ECON 101 and 102; jr rank. Introduces students to literature and prevailing public opinion toward private enterprise system. Shows how business may effectively utilize economic education to improve attitudes of consumers toward business.

**447 Economic Analysis and Its Application to the Curriculum (2-5)**

Prereq: 346 or HE majors. For elementary and secondary

teachers. Designed to emphasize methods of inquiry employed by economists and their application to theories of instruction.

**448 Economic Policy and Its Application to the Curriculum (2-5)**

For elementary and secondary teachers, designed to provide application of economic analysis to economic policy and courses of study.

**449 Economic Education Programs (3-5)**

Economic education in schools. Administrative and organizational structures, current curriculum development projects, essential economic understandings that should be taught and their place in curriculum, ways to improve economic education, and economic education organizations.

**491 Seminar (3-5)**

Prereq: perm. Selected topics of current interest in economic education.

**492 Research (3-5)**

Prereq: perm. Methodology, analysis of data, and preparation of research findings.

**493 Readings (1-15)**

Prereq: perm. Readings in selected areas of economic education.

**497 Independent Research (1-15)**

Prereq: perm. Research in selected fields of economic education under direction of faculty member.

**498 Internship (1-15)**

Prereq: perm.

## Educational Media

**201 Use of Library Resources I (3) (2A)**

*S. Roberts.* Designed to acquaint student with resources available in academic library, their organization and arrangement. Emphasis placed upon how to use information sources in, fine arts, natural sciences, mathematics, technology, and social sciences, etc., stressing practical application.

**289 Sophomore Practicum (2)**

Prereq: soph rank, perm. *S. Roberts, S. Strother.* Practicum designed to provide professional experience for sophs who have declared majors in K-12, and noncertificated media management. Also, field experience will provide opportunity for evaluation of performance at soph level. Must arrange qtr before.

**301 Library Service to Children (4)**

(winter) *S. Roberts.* Aspects of library work with children investigated through films, texts, current articles, field trips, and group discussion. Participants practice skills in storytelling with groups of children in library situations. Selection of library media materials an important part of coursework.

**302 Adolescent Materials and Services (4)**

(spring) *S. Roberts.* Selection process for secondary school library media center, involving examination of and evaluation of books and nonbook materials; problems of maintaining intellectual freedom, and planning of programs for library media center.

**303 Teaching Library Skills K-12 (3)**

Prereq: jr standing, 289, perm. *S. Roberts, S. Strother.* Instructional program for teaching student skills related to gathering and utilization of information. Development of sequential program of library/media center instruction which can be followed from kindergarten through grade 12, including methods and materials for instruction.

**304 Acquisition and Preservation of Materials (3)**

Prereq: 201 or perm. *S. Roberts.* Ordering, receiving, processing, housing, and preservation of print and nonprint materials in media center.

**305 Use of Library Resources II (3)**

Prereq: 201. (winter) *S. Roberts.* Study directed toward specific subjects: philosophy, psychology, fine arts, literature, history, social science, education, science and technology, and the ref-

ferences relevant to them. Analysis of information needs and methods of meeting those needs.

### **389 Junior Practicum (2)**

Prereq: jr standing, 289, perm. *S. Roberts, S. Strother.* Practicum designed to provide professional experiences for jrs who have declared majors in K-12 and noncertificated media management. Also, field experience will provide opportunity for evaluation of performance at jr level. Must arrange qtr before.

### **402 Advanced Library/Media Studies (2-5)**

Prereq: perm. *S. Roberts, S. Strother.* Elective designed for student who wants to explore some facet of library work in greater depth.

### **403 Classification and Cataloging (5)**

(fall) *S. Roberts.* Classifying and cataloging books and other print materials for high school library media center. Students make practice card catalog.

### **404 Basic Cataloging of Nonprint Materials (4)**

Prereq: 403 or perm. *S. Roberts.* Cataloging nonprint materials with practice in preparation of catalog cards. Establishing procedures and guidelines relative to cataloging of nonprint materials whereby these materials may be integrated into library catalog and materials intershelved.

### **480 Introduction to Educational Media (4)**

Prereq: jr rank. *R. Miller, S. Strother.* Application of principles of educational technology and media to teaching-learning situation. Includes lab experiences in basic production of materials and equipment operation.

### **480A Introduction to Educational Media (2)**

Prereq: EDSE 250, EDSE 250L, EDSE 270, EDSE 270L, admission to jr standing. Clinical experience designed to provide secondary teacher education student with expertise in: (a) operation of audiovisual equipment; (b) demonstration/display board design; (c) spirit duplication; (d) mounting and preservation of materials; and (e) preparation of handmade and thermographic transparencies.

### **481 Fundamentals of Instructional Design and Development: Media Emphasis (4)**

Prereq: 480, 482 and perm. *S. Strother.* Investigates principles and practices of integrating media into instructional process. Media examined within context of instructional design process, nature of communication, teaching, and learning.

### **482 Production of Instructional Materials (4)**

Prereq: jr rank and 480 or perm of instructor. *R. Miller, S. Strother.* Develops basic techniques for design and production of wide variety of instructional and display materials. Includes lab experiences illustration, lettering, coloring, preservation, and reproduction techniques used in creating educational displays, slide programs, transparencies, and other projected and nonprojected materials

### **483 Selection and Evaluation of Media (4)**

Prereq 480 *S. Roberts, R. Miller* Principles for selection and evaluation of print and nonprint media, use of standard selection aids and reviews, writing of annotations, policies governing building and maintenance of collection covered

### **488 Practicum in Educational Media (3)**

Prereq 403, 480 and 489 *S. Roberts, S. Strother.* Supervised library media field experience of professional nature of not fewer than 90 clock hours. Because of nature of course student must obtain perm 1 qtr previous to enrollment in course

### **489 Organization and Administration of Educational Media Programs (5)**

Prereq 351 or perm *R. Miller, S. Strother.* Organization and administration practices for educational media programs in individual schools, school districts, and industrial settings. Emphasis on budget procedures, staffing, acquisition, organization, and evaluation techniques.

## Elementary Education

### **200 Studies of Children (4)**

Bases for a developmental theory of education; growth sequences through adolescence; principles of development, behavior, and learning; techniques of child-study; implications for educational practice. No credit awarded if HECF 160 or PSY 173 has been taken.

### **306 Kindergarten — Theory and Methods (6)**

Prereq: jr standing in teacher education. *Staff.* Combines evolving theory of education in kindergarten with selection and uses of learning materials through laboratory practice and participation experiences in local schools.

### **310 Teaching the Language Arts in the Elementary Schools (3)**

Prereq: jr standing in teacher education. *S. Rebottini, R. Pinney, B. Van der Veur.* Methods course in teaching areas of language arts other than developmental reading. Treats basic information in language development, oral and written language activities, spelling, penmanship, grammar, usage, poetry and drama, language arts organization and management, and evaluation and remediation techniques in language arts areas.

### **310L Teaching the Language Arts Field and Clinical Experience (2)**

Prereq: jr standing in teacher education; coreq with EDEL 310. *R. Pinney, S. Rebottini, B. Van der Veur.* Field/clinical component for 310. Designed to give elementary education majors practical field and clinical experiences in public schools and is complementary to theory presented in 310.

### **311 Teaching of Reading in the Elementary School (4)**

Prereq: jr standing in teacher education, 310 and 310L; coreq with 311L. *R. Pinney, S. Rebottini, B. Van der Veur.* Preservice preparation for teaching of developmental reading, K-6; text and supplementary readings; lecture, demonstration, and discussion; multi-media resources; observations and participation in schools; projects for practical competence.

### **311L Teaching of Reading in the Elementary School Field/Clinical (1)**

Prereq: jr standing in teacher education, 310; coreq with 311. *R. Pinney, S. Rebottini, B. Van der Veur.* Field/clinical component to accompany 311. Gives elementary education majors practical field and clinical experiences in public schools and is complementary to theory presented in 311.

### **321 Children's Literature (3)**

Prereq: jr standing in teacher education or perm; coreq with 321L. Treats body of literature, by genre, appropriate for children from preschool through middle-school age and various techniques for utilizing children's literature in school setting.

### **321L Children's Literature - Field/Clinical (1)**

Prereq: jr standing in teacher education or perm; coreq with 321. *R. Pinney, S. Rebottini, C. Smith.* Field component for 321. Treats body of literature, by genre, appropriate for children from preschool through middle-school age and various techniques for utilizing children's literature in school setting.

### **330 Teaching Mathematics in the Elementary School — Kindergarten through Grade 3 (2)**

Prereq: jr standing in teacher education and MATH 120-121 (or equiv.) *C. Smith.* Examination of methods and materials used in teaching of mathematics in elementary school programs. Special emphasis on use of mathematical models, adjusting instruction for individual pupil growth, and diagnosing learning difficulties in lower elementary school (kindergarten through grade 3).

### **330L Teaching Mathematics in the Elementary School — Kindergarten through Grade 3 — Field/Clinical (1)**

Prereq: jr standing in teacher education, coreq with 330. *C. Smith.* Students will observe and teach mathematics lessons in elementary school under supervision of course instructor. Proficiency in use of mathematical models and manipulative



teaching aids demonstrated by each student in mathematics education laboratory. Field experiences will take place in a primary (kindergarten-grade 3) classroom.

### **331 Teaching Mathematics in the Elementary School – Grades 4-8 (2)**

Prereq: 330. C. D'Augustine, C. Smith. Examination of methods and materials used in teaching of mathematics in elementary school programs. Special emphasis on use of mathematical models, adjusting instruction for individual pupil growth, and diagnosing learning difficulties in upper elementary school (grades 4-8). Continuation of 330.

### **331L Teaching Mathematics in the Elementary School – Grades 4 through 8 – Field/Clinical (1)**

Coreq with 331. C. Smith. Students observe and teach mathematics lessons in elementary school under supervision of course instructor. Proficiency in use of mathematical models and manipulative teaching aids demonstrated by each student in mathematics education laboratory. Field experiences will take place in an upper grade level classroom (grades 4-8).

### **340 Teaching of Science in the Elementary School (4)**

Prereq: jr standing in teacher education; 12 hrs of science including biology and physical science. L. Mills, P. Ploutz. Materials and methods of teaching science in elementary schools. Textbooks, science equipment, and related instructional materials used in lab lessons.

### **350 Teaching of Social Studies in the Elementary School (3)**

Prereq: 12 hrs of social science including GEOG 121, jr standing in teacher education. A. Leep. Materials and methods in teaching social studies in elementary schools. Special emphasis on practical experience in preparation and teaching of units.

### **350L Teaching of Social Studies in the Elementary School – Field/Clinical (1)**

Prereq: 12 hrs of social science including GEOG 121, jr standing in teacher education. Coreq with EDEL 350. A. Leep, M. Ploghoft. Field/clinical component to accompany 350. Gives elementary education majors practical field and clinical experiences in public schools and is complementary to theory presented in 350.

### **372 Managing an Elementary School Classroom (2)**

Prereq: jr standing in teacher education. A. Hoy, J. Brunk. Provides preservice teacher with knowledges and skills to manage records, learning environment, and pupils within elementary school learning setting (e.g., classroom, playground, etc.).

### **400 Advanced Studies of Children (3)**

Prereq: 20 hrs of education or psychology. J. Brunk. Intensive study of biological and environmental influences on human development from conception to maturity.

### **407 Evaluation in the Elementary School (3)**

Prereq: 16 hrs of education. Staff. Standardized tests in elementary school with emphasis on selection, interpretation, and use. Teacher-made tests, check lists, rating scales, and anecdotal records. Elementary statistical treatment of test scores and grading.

### **411 Diagnosis and Treatment of Reading Disabilities (4)**

Prereq: 310, perm. S. Rebottini, B. Van der Veur, R. Pinney. Correlates of variability in reading proficiency. Incidence of retardation and disability. Proposed causes of failure and concept of multiple causation. Specialized materials and instructional efforts. Systematic observation of cases of reading disability and preparation of case report.

### **412 Reading Laboratory Practicum (4, max 12)**

Prereq: sr rank, 411. S. Rebottini, B. Van der Veur. Application of developmental approach to problem cases in reading instruction, participation in diagnostic examination, parent and teacher conferences, individual procedures in tutoring, staffing of cases, and preparation of reports. (Weekly group discussion period, lab sessions arranged.)

### **430 Modern Elementary Mathematics Curriculum (3)**

Prereq: 330. C. Smith, C. D'Augustine. Modern elementary mathematics curriculum with emphasis on why changes are occurring. Nature of changes as reflected from experimental programs; effect of changes on methods of teaching. Implementation of these changes in classroom.

### **460 The Child and the Curriculum (4)**

Prereq: student teaching. (Academic yr plus 1st term of summer session). M. Ploghoft, C. Smith. Develops purpose for elementary education through study and research of curriculum and learning problems. Emphasis on service role of elementary school curriculum to child and society and role of teacher in laying educational foundations in development of self-worth for each child.

### **490 Study in Elementary Education (1-5, max 15)**

Prereq: perm of dept chairman. Independent and/or group study of some special interest and concern (problems, area, questions) under guidance of staff; assigned and suggested readings and other resources and experiences; frequent conferences; preparation of final report.

## **International and Comparative Education**

### **420 Comparative Cultures and Education (4)**

Prereq: perm. (fall, spring) S. Samaan. Emphasis on distinctive cultural, economic, and political forces which shape patterns, problems, and roles of education in some selected developed and developing nations. These include United States, some European countries, and at least one African and/or Asiatic nation where a former or present western culture has an impact. Assessment of this impact especially on educational developments.

### **425A Education and Development in Africa (4) (2T)**

Prereq: perm. (winter) S. Samaan. Interdisciplinary course focusing on tradition and change in African societies, problems of political independence, economic development, cultural values in transition, tribalism and nationalism, and role of Africa in world peace and international cooperation. Tradition and change in African education, landmarks in African educational developments, and role of education in economic and technological development. Issues and problems in African education.

### **425B Education and Development in Asia (4) (2T)**

Prereq: perm. Same emphasis as 425A on tradition and change in society, culture and education, and role of education in national development and international understanding; discussion of pertinent educational issues and problems.

### **425C Education and Development in Latin America (4) (2T)**

Prereq: perm. Same emphasis as 425A-425B, on tradition and change in society, culture and education, and role of education in national development and international understanding; discussion of pertinent educational issues and problems.

### **432 Perspectives in International Education (4)**

Prereq: perm. S. Samaan. Interdisciplinary course dealing with concept and issues of international understanding, its psychological, economic, and political preconditions; perceptions, values, and attitudes that constitute or impede understanding among individuals, groups, races, and nations; human and cultural dimensions in technical assistance programs and in international relations; role of education in attitude change and formation relative to international understanding and development.

### **450 Teaching Strategies for Cultural and International Understanding (4)**

Prereq: perm, sr rank. S. Samaan. Psychological and sociological foundations of cultural values and ways of life investigated. Strategies for developing cross-cultural understanding and cooperation studied and developed. Emphasis on innovative approaches to learning for elementary and secondary school pupils.



## Secondary Education

### 250 Analysis of Teacher Characteristics and Teaching Tasks (4)

Prereq: PSY 101; admission to teacher education; must be taken concurrently with 250L, 270 and 270L. *M. Johnson, R. Bushong, B. Ford, J. Thompson, G. Dotson.* Immediate focus on teaching tasks and models, training in systematic observation and analysis, peer teaching, and tools for self-analysis.

### 250L Analysis of Teaching Characteristics and Teaching Tasks Field Experience (2)

Prereq: PSY 101; admission to teacher education; must be taken concurrently with 250, 270 and 270L. *R. Bushong, M. Johnson, B. Ford, J. Thompson.* Immediate focus on performance of undergraduate student in act of teaching in secondary school setting. Major emphasis on developing systematic skills in observation and analysis of teaching. Each student will work with cooperating teacher during qtr. Students will teach several micro-teaching lessons in schools. Session will be video-taped so students may analyze their teaching performance while viewing the video tapes in clinical setting.

### 270 Studies of the Learner: Development and Exceptionality (3)

Prereq: PSY 101; admission to teacher education; must be taken concurrently with 250/250L, 270L or comparable field experience. *P. Hoessli, R. Bushong, J. Thompson, B. Ford.* Focus on study of human growth and development, both normal and exceptional, of preadolescents and adolescents. Major emphasis on effect of cognitive, physical, social, and emotional developmental changes on learner and on comprehensive survey of nature and educational needs of exceptional students.

### 270L Studies of the Learner: Development and Exceptionality Field Experience (1)

Prereq: PSY 101; admission to teacher education; must be taken concurrently with 250/250L and 270. *P. Hoessli, J. Thompson, R. Bushong, B. Ford, M. Johnson.* Field experience enables students to observe evidence of diversity in cognitive, physical, social, and emotional development during preadolescence and adolescence. Students observe and analyze characteristics of growth and development and exceptionalities in variety of field settings.

### 351 Middle School and High School Instructional Processes and Curriculum (5)

Prereq: 250, 250L, 270, EDCI 275 or PSY 275, admission to jr standing. To insure that preservice teacher builds large repertory of teaching strategies and techniques. This learning experience will allow preservice teacher to gain sufficient knowledge for selection of appropriate techniques and methods to match learner situation, teacher personality, pupil needs, and subject for enhancement of learning. Preservice teacher must gain knowledge and skills in techniques and strategies for preparing interesting learning situations and stimulating thinking.

### 415 Cocurricular Programs for Secondary Schools (4)

Prereq: admission to jr standing in teacher education. Comprehensive treatment of school-recognized activities in cocurricular programs, such as school newspaper, honor society, advising clubs and student government, national contests for talented students, etc.

### 420 Teaching of Reading in the Junior and Senior High School (4)

Prereq: 250, 270, EDCI 275 or PSY 275, 351, admission to jr standing. Materials, methods, and techniques for teaching of adolescents of wide ranges of learning ability levels within area of reading is focus. Diagnosis, adaptation of materials, and specific teaching methods for adolescent learners in jr and sr high school regular classroom settings emphasized. Must be taken concurrently with 420L, and it is recommended that it also be taken at same time student is enrolled in special methods courses, if possible.

### 420L Teaching of Reading in Content Areas: Field Experience Component (1-2)

Prereq: 250, 270, 351, EDCI 275 or PSY 275, admission to jr

standing; must be taken concurrently with 420. Field experience to provide practical applications of materials, methods, and techniques of secondary reading instruction as appropriate in various secondary classroom settings. Student will tutor assigned secondary school student in secondary school setting. It is recommended that 420 and 420L be taken at same time that special methods courses are taken, if possible.

### 432 Evaluating Pupil Progress in Secondary Schools (3)

Test construction, teacher-made tests, standardized tests, and instructional objectives of testing. Test evaluation, score interpretation, and relation of tests to student development.

### 470 Teaching of Bookkeeping and Basic Business (3)

Prereq: 351 and ACCT 303. (fall) Materials, methods, and techniques in teaching bookkeeping and basic business subjects.

### 471 Teaching Mathematics in Middle and Junior High School (3)

Prereq: 351. (spring) Organization and methods of teaching subject matter of mathematics curriculum in grades 7 and 8. Number system studied.

### 472 Teaching of Earth Science (3)

Prereq: 351. (winter) *R. Skinner.* Instructional materials and techniques related to teaching earth science.

### 478 Teaching of Physical Science (3)

Prereq: 351 and perm. (fall) *R. Mitias.* Instructional materials, classroom methods, sources of lab equipment and supplies, and teaching techniques in physical sciences.

### 479 Teaching of the Social Studies in Junior and Senior High Schools (3)

Prereq: 351. *A. Clubok.* Nature, development, purpose, and value of social studies, with emphasis on methods and techniques of instruction. Curriculum reorganization, unit planning, materials of instruction, and evaluation.

### 480 The Teacher, School and Society (3)

Prereq: should not be taken while student teaching. *A. Clubok, G. Stephenson.* Current trends and issues in American secondary education, utilizing materials drawn from social and cultural foundations of education.

### 490 Studies in Secondary Education (1-5, max 15)

Prereq: perm of dept chairman. Honors students or students seeking honors in secondary education may register for this course.

## Special Education

### 160 Field Experience in Special Education (Block I) (1)

*P. Hoessli, S. Schaaf, B. Reeves.* Purpose of field experience is to provide training in observational techniques, intensive observations of normal and exceptional children in variety of settings, and simulations of exceptionalities.

### 260 Field Experiences in Special Education (Block II) (2)

Prereq: special education block I. *L. Jageman.* Field experience occurs during soph yr of special education major's program of studies. Taken in conjunction with special education block II courses where practical application of concepts and skills of these courses is provided through field observations and teacher aid experiences with mentally retarded children and/or adults. Different field experience sites will be in county mental retardation class program, sheltered workshop institution, and public school classes for mentally retarded.

### 270 Classroom Management of Children with Problem Behaviors I (3)

Prereq: special education block I. Develops teacher skills applicable in pre-student teaching, student teaching, and in a professional teaching situation. Skills focused on emphasize behavior modification techniques with purpose of reducing behavioral problems, maximizing learning, and increasing pupil

and teacher mental health. Procedures used will systematically move from teacher control to shared control with pupils and progressing to pupil self-control techniques.

### **271 Introduction to Education of Exceptional Children and Youth (3)**

Prereq: admission to teacher education. *P. Hoessli, B. Reeves, S. Safran.* Comprehensive survey of special education programs emphasizing multidisciplinary approach, mainstreaming, and current trends in providing instruction to mentally retarded, learning disabled, behavior disordered, physically disabled, visually impaired, hearing impaired, communication problems, and gifted.

### **272 Introduction to Education of Mentally Retarded Children and Youth (3)**

Prereq: special education block I or perm. *S. Schaaf.* Etiology, diagnosis, classification, learning potential, and general characteristics of retarded child with emphasis on psychosociological impact of retardation upon individual, family, and community.

### **360 Field Experiences in Special Education (Block IV) (3)**

Prereq: special education blocks I, II, III. *A. Allen.* Field-based course operating concurrently with and providing student with opportunities to apply skills and knowledges taught in professional courses in block IV. Done through observation, participation, interview, tutoring, and group teaching in public schools and related agencies where exceptional children and youth are taught/trained.

### **370 Classroom Management of Children with Problem Behaviors (II) (3)**

Prereq: 270, special education blocks I, II, and III. Furthers student knowledge and skills essential to working with LD/BD and EMR children/youth. Includes specific individual and group interaction strategies, classroom management and organization, and techniques for effective teacher delivery, presentation and feedback.

### **371 Teaching the Preschool Handicapped (3)**

Prereq: special education block II or perm. *S. Schaaf, B. Reeves.* Purpose, organization, and methods utilized for education of preschool handicapped including program of home training.

### **372 Language Development for the Handicapped (3)**

Prereq: special education block II or perm. *Staff.* Examination of language acquisition of handicapped children with primary emphasis on mental retardation. Methods and materials in evaluation and training of receptive and expressive oral language and alternative communication modes presented.

### **373 Curriculum and Materials for the Mentally Retarded (3)**

Prereq: special education block I. *L. Jageman.* Philosophy, content, organization, and development of curriculum for mentally retarded with emphasis on preparation of curriculum plan and selecting materials.

### **374 Language Arts for the Mentally Retarded (4)**

Prereq: special education block III and EDEL 311. *S. Schaaf.* Organization of methods and materials for teaching all phases of developmental language skills to the retarded.

### **375 Social Studies and Science for the Mentally Retarded (4)**

Prereq: special education block III. *L. Jageman.* Organization and methods of teaching science and social studies to mentally retarded. In addition to selection, planning, and teaching of appropriate units in social studies and science, emphasis is on implementation of current theory and research to strengthen personal-social-vocational adjustment of mentally retarded. This is for EMR pupils in regular and special classrooms.

### **376 Mathematics for the Mentally Retarded and Learning Disabled (4)**

Prereq: special education block IV. *Staff.* Organization methodology and materials for teaching basic math concepts and skills which have particular relevance to social and vocational

adequacy of mentally retarded children and youth at all levels of instruction.

### **377 Career and Vocational Education for the Handicapped (3)**

Prereq: special education block III or perm. *P. Hoessli, A. Allen.* Roles of education, guidance, career and vocational training, placement, and follow-up service in promoting career and work adjustment of handicapped youth and adults in community.

### **378 Sheltered Workshop Organization (2)**

Prereq: special education block II or perm. *L. Jageman.* Organization and management of sheltered workshop with emphasis on training handicapped client and on production. Training will include evaluation, teaching, supervision, and community placement. Production includes contracts, assembly, records, and salaries.

### **379 Homemaking and Family Living for the Handicapped (3)**

Prereq: special education block II or perm. *L. Jageman, A. Allen.* Designed to develop understanding of objectives, organization, methods, materials, and programs essential to teaching handicapped child self-care, homemaking, and family living skills for his or her youth and adulthood.

### **400 Introduction to Emotionally Disturbed Children (3)**

Prereq: block III or perm. *S. Safran.* Basic understanding of emotional disturbances including causes, characteristics, and implications for behavioral and psycho-educational planning.

### **401 Teaching the Emotionally Disturbed Child (3)**

Prereq: 400 or perm. *S. Safran.* Programs, methods, and materials used in education of emotionally disturbed child emphasizing a team-developed prescriptive educational and behavioral procedure.

### **435 Recreation and Physical Education for the Mentally Retarded and Learning Disabled (5)**

Prereq: special education block II or perm. Preparation for presenting activities and evaluating mentally retarded and learning disabled children and youth in areas of body mechanics, physical fitness, games of low organization, sports, rhythms, stunts, tumbling, and recreation activities.

### **460 Field Experience in Special Education (Block V) (3)**

Prereq: special education blocks I, II, III, IV. Field-based experience designed to provide supervised practical experience through tutoring LD child or youth in public school setting. Field experience includes diagnostic-prescriptive teaching in areas of reading, arithmetic, and language arts.

### **474 Introduction to Specific Learning Disabilities (4)**

Prereq: special education block II or perm. Provides comprehensive overview of field of learning disabilities; introduces varied theories, controversies, and practices; discusses disciplines contributing to field, theoretical, and practical concepts of identification and diagnosis, specific learning disabilities, learning disabled adolescent, early identification, educational provisions, and impact on parents and family.

### **475 Education of the Trainable Retarded (4)**

Prereq: special education block II or perm. Diagnosis, classification, learning potential, organization of curriculum, educational materials, teaching methodology, and programs for trainable mentally retarded.

### **476 Teaching the Learning Disabled (4)**

Prereq: special education block IV. Provides training in evaluating learning disabled student's academic and behavioral problems; developing individual diagnostic-prescriptive programs; utilizing specific instructional methodologies and materials; developing individual education programs; organizing instruction in LD classrooms; and evaluating student progress.

### **477 Communicating with Parents of Exceptional Individuals (3)**

Prereq: special education block IV or IIIB or perm. Designed to develop understanding of stresses of parenting exceptional child

and how to establish professional relationship with parents so as to strengthen parent effectiveness and involvement. Includes overview of communication techniques, professional roles, and community resources.

#### **478 Education of the Disadvantaged and Handicapped (3)**

Prereq: admission to jr standing in teacher education. Problems and new approaches to education of disadvantaged children handicapped through intellectual impairment, sensory deficits, perceptual disorders, etc.

#### **485 Diagnosis and Evaluation of the Handicapped (3)**

Prereq: special education blocks I, II, III, IV. S. Schaaf. Designed to have student learn types, purposes, and appropriateness of various testing and evaluation tools and techniques. Moreover, covers analysis, interpretation, and reporting of assessment information.

#### **490 Study of Special Education (1-5, max 15)**

Prereq: perm of area coordinator. Independent analysis of problems, special interests, concerns, with assigned and suggested readings, programmed experiences, and preparation of final report, with guidance of staff member.

## **Professional Laboratory Experiences**

#### **360 Field Experience in Elementary or Secondary Schools (2)**

Prereq: jr standing, perm. Observation and participation in elementary and secondary schools. Prior approval must be secured from Field Experience Office in May for those planning experience in August-September period and in November for those planning participation in December. May be repeated.

#### **361 Field Service in Education (2)**

Prereq: soph rank. Participation in community agencies, summer camps, recreation programs, Head Start, and various school related programs. Arrangements must be made in Field Experience Office prior to participation.

#### **460 Observation and Participation in Elementary or Secondary Schools (3)**

Prereq: perm. J. Evans. Extensive participation in school program extending over period of 1 qtr, designed primarily for students with some classroom teaching experience, especially students from other countries.

#### **461 Student Teaching in Elementary Schools (7)**

Prereq perm J. Evans, staff. Assigned responsibility for teaching under supervision of a master teacher in a classroom in K-6 range for 1 qtr, full-time. Concurrent registration in 461, 462, and 465 is required of all elementary education, speech therapy, and special education majors. Concurrent registration in 461, 463, and 465 is required of majors in art, music, and physical education.

#### **462 Student Teaching in Elementary Schools (6)**

Prereq 461. Continuation of 461. See 461 for description.

#### **463 Student Teaching in Secondary Schools (6)**

Prereq perm J. Evans, staff. Assigned responsibility for teaching under supervision of a master teacher in a classroom in 7-12 range for 1 qtr, full-time. Concurrent registration in 463-464-465 is required of all majors in secondary academic areas, home economics and industrial arts. Majors in art, music, and physical education must register concurrently for 461, 463, and 465.

#### **464 Student Teaching in Secondary Schools (7)**

Prereq 463. Continuation of 463. See 463 for description.

#### **465 Student Teaching Seminar (3)**

J. Evans, staff. Analysis and interpretation of student teaching experience. Problem-centered discussion of major areas of concern directly related to classroom teaching. Structured discussion of unit and lesson planning, evaluation, classroom management, pupil adjustment, effects of recent legislation upon classroom teacher, position procurement, professional ethics, and

professional organizations. Concurrent enrollment for 13 qtr hrs credit in student teaching is required.

#### **466 Student Teaching for Advanced Students (6-9, max 9)**

Prereq: perm. J. Evans, staff. Supervised observation, participation, and limited teaching; open only to elementary education degree candidates and selected secondary education and special education majors with a minimum of 3 yrs of prior teaching experience.

## **ELECTRONICS TECHNOLOGY**

The following courses for the A.A.S. program in electronics technology are available only on the Lancaster campus.

#### **133 Basic Electronics (5)**

Prereq: 1 yr h.s. algebra or perm. Provides each student with introductory knowledge of electricity and solid state electronics. Basic electrical terms, units, symbols, schematics, and code. Fundamentals of alternating current and direct current electricity. Ohm's Law applied to series and parallel networks. Inductance and capacitance theory. Test equipment used for troubleshooting. Fundamentals of solid state theory and application. Operating characteristics of diodes, transistors, and I.C.s. Concludes with an introduction to computers and microprocessors. Field trips will be part of the laboratory activity. 3 lec, 4 lab.

#### **134 Direct Current Circuit Analysis (5)**

Prereq: 133. Direct current electrical theory, application, and circuit analysis. 3 lec, 4 lab.

#### **135 Alternating Current Circuit Analysis (5)**

Prereq: 134, MATH 118, or perm. Alternating current electrical theory, application, and circuit analysis. Sinusoidal wave forms, inductive reactance, resonance circuits, and RC circuits. Power transformers and polyphase systems. Power generation and distribution. 3 lec, 4 lab.

#### **136 Electrical Motors, Control Circuits and Computers (5)**

Prereq: 135 or perm. Industrial power rotating machines and computer control. Motor principles, classification, and application. Motor control circuits, single phase, 3-phase systems, relays, and overload protection. Testing and maintenance procedures. Field trips part of lab activity. 3 lec, 4 lab.

#### **138 A.C. and D.C. Circuit Analysis (6)**

Prereq: 133, MATH 118, or perm. A.C. and D.C. electrical circuits. Application of network theorems to circuits containing resistors, capacitors, inductors, and transformers emphasized.

#### **140A-J Power Distribution Systems (1-5, max 5 each segment)**

Prereq: 135 or perm. (A) Residential Electrical Wiring, (B) Commercial Electrical Wiring, (C) Industrial Electrical Wiring, (D) National Electrical Code, (E) Low Voltage Wiring, (F) High Voltage Systems, (G) Fire Alarm Systems, (H) Electrical Safety, (I) Electrical Blueprints and Specifications, (J) New Developments in Power Distribution.

#### **200 Testing and Repair of Electronic Equipment (3)**

Prereq: 235 or perm. Fundamentals of test equipment applications with emphasis on repair of consumer and industrial equipment. 1 lec, 4 lab.

#### **233 Solid State Devices (6)**

Prereq: 135 or perm. Advanced study of solid state devices, their operating characteristics, and circuit analysis. Transistor amplifiers, bias, impedance matching and classes of operation, integrated circuit theory, and application. 3 lec, 6 lab.

#### **234 Industrial Electronics and Linear Integrated Circuits (5)**

Prereq: 233 or perm. Theory and application of solid state industrial control. Silicon control rectifiers, photoelectric, differ-

ential amplifiers, oscillators, and phase shift controls. Field trips part of lab activity. 3 lec, 4 lab.

### 235 Digital Electronics (6)

Prereq: 234 or perm. Comprehensive study of pulse and digital circuits used in industry. Wave shaping, switching circuits, trigger circuits, nonsinusoidal oscillators, and sequencing systems. Digital concepts, Boolean algebra, logic circuits, memory circuits, arithmetic unit, and logic application to electronic control circuits. Field trips part of lab activity. 3 lec, 6 lab.

### 236 Microprocessor and Computer Basics (6)

Prereq: 235 or perm. Introduction to computer organization and design, including ROMs, RAMs, microprocessors, instruction sets, hardware, interfacing, software, and machine and assembly language programming. 3 lec, 6 lab.

### 237 Design and Production of Electronic Circuits (3)

Prereq: 133 and IT 101 or perm. Printed circuit theory, design, application, and fabrication. 2 lec, 2 lab.

### 250 Computer Programming for Electronic Circuit Analysis (3)

Prereq: 233, MATH 118, or perm. Introduction to high-level language programming for the solution of electronic circuit problems. Primary emphasis on BASIC language with survey of other languages. 2 lec, 2 lab.

### 299 Special Problems (1-3, max 9)

Prereq: perm. Individual projects or internship experiences under the supervision of faculty member in electronics technology.

## ENGINEERING AND TECHNOLOGY

### 100 Engineering and Technology (3) (2A)

Introductory course to engineering and technology for all students. Lectures in related fields and involvement in engineering problems through student-selected projects.

### 134 Electronic Maintenance (3)

Information on how to maintain and repair all types of electronic equipment (e.g., hi-fi amplifiers, AM & FM receivers, digital logic circuits, etc.). No previous experience in electronics necessary. Demonstrations and lab experience will provide each student with theory and practical basic instructions on how to use test equipment. 1 hr lec, 4 hrs lab.

### 180 Problem Solving (3) (1M)

Introduction to approach to problem solving by presenting, at fr level, many problems common to all branches of engineering such as balance of forces, materials, energy, and transport relationships. Real-world problems and situations described in mathematical terms, and alternative methods of problem solutions presented, showing need for more advanced techniques and knowledge that student will acquire in later mathematics, engineering, and science courses.

### 180A Problem Solving (3)

Prereq: perm. (summer) Emphasizes problem solving and applications. Topics covered: variables, functions, limits, derivative, differentiation, tangents and normals, problems in maxima and minima, motion, curves and curvature, vectors, polar coordinates, differentials, series.

### 180B Problem Solving (3)

Prereq: perm. (summer) Emphasizes problem solving and application. Topics covered: plane areas, volumes, centroids, moments of inertia, fluid pressure, work, arc length, area of solids, variable properties.

### 240 Introduction to Computer Solutions of Engineering Problems (4)

Prereq: MATH 263C or with MATH 263C or perm. Introduction to application of digital computation techniques to engineer-

ing problems. Techniques of programming, including FORTRAN, GPSS, etc., useful for solution of engineering problems and use of peripheral equipment.

### 320 History of Western Technology (3) (2A)

Survey of significant technological innovations of western civilization from Greco-Roman period into 20th century. Interrelationships, in history, between technology and society. Background in technology or science not required.

### 322 Introduction to Materials Behavior (3)

Introductory materials science course covering behavior of metals, polymers, and ceramics for nontechnical majors.

### 325 Pollution Solutions I (3) (2A)

Aspects of air pollution and control within our technology. Problems, solutions, and economics of air pollution with guest speakers on topics of class interest.

### 326 Pollution Solutions II (3) (2A)

Same course description as 325 covering different aspects and topics. Not a continuation of 325.

### 331 Fluid Dynamics for Nonengineers (3) (2A)

Prereq: jr standing or perm. Not open to engineering students. A physical, not mathematical, introduction to principles controlling fluid motions in our environment. Study of weather, blood circulation, aerodynamics, river hydraulics, and rocketry through design of golf balls and plumbing systems included. Introduction to mechanics, fluid properties, fluids at rest and in motion. Lectures and reading assignments supplemented with films.

### 334 Water Pollution Control (3) (2A)

Prereq: soph rank. Designed for student with limited technical background but who is interested in problems of water pollution. Deals with nature of water, source and character of pollutants, technology of waste-water renovation, ecology of water pollution and legal, economic and administrative constraints.

### 337 Transportation Today (3) (2A)

Prereq: jr standing or perm, not open to civil engineering majors. Designed for student with limited technical background who is interested in gaining knowledge in area of highway and transportation planning and design. Major topics include geometric factors, traffic studies, modes of transportation, human equation, and planning strategies.

### 345 Fundamentals of Analog Computation (3)

Prereq: MATH 340. Basic operation of analog computer and auxiliary equipment. Solution of linear and nonlinear differential equations and simulation of physical systems on analog computer.

### 350 Engineering and the Technological Society (3) (2A)

Prereq: jr or sr rank. Technical inventions and social inventions, impact and social consequences of engineering, public policy issues, ethical considerations, and some exploration of alternative futures. Discussion and lecture format used.

### 360 Communication Technology (3) (2A)

(winter) Introduction to theory and application of electronic devices and systems employed in communications. Topics include among others man-to-computer communication, CRT terminals, radio and television receivers and transmitters, communication satellites, information transmission by light waves. Not open for credit to engineering majors.

### 470 Energy and the Environment (3) (2A)

(fall, spring) Examinations of ramifications of energy in contemporary society. Energy uses; problems of production; availability of reserves; economic and political considerations; environmental impact; fission, fusion, solar, and other future conversion techniques. Course designed to prepare individual for effective participation in societal actions related to energy and power.

## ENGINEERING, CHEMICAL

### 200 Introduction to Chemical Engineering (4)

Prereq: CHEM 143. (fall, spring) Applications of chemistry,

physics, and mathematics to solution of material and energy balances typical of those encountered in process industries. 3 lec, 2 lab.

### **302 Chemical Engineering Thermodynamics and Kinetics (5)**

Prereq: 200. (fall) Application of thermodynamics to chemical engineering problems, including problems in chemical equilibrium for homogeneous and heterogeneous systems, mixtures, and pure materials. Applications of chemical kinetics to design of chemical reactor systems. 5 lec.

### **303 Chemical Engineering Thermodynamics and Kinetics (4)**

Prereq: 302. (winter) Continuation of 302. See 302 for description. 3 lec, 2 lab.

### **304 Chemical Engineering Thermodynamics and Kinetics (4)**

Prereq: 303, MATH 340. (spring) Continuation of 302-303. See 302 for description. 3 lec, 2 lab.

### **331 Principles of Engineering Materials(4)**

Prereq: CHEM 122 or 143. (fall, spring, summer) Fundamental principles underlying behavior of engineering materials. Relationship between structure and properties of ceramic, metallic, and polymeric materials. 4 lec.

### **342 Unit Operations I (5)**

Prereq: 200, MATH 340. (fall) Fundamental principles of fluid flow, heat, and mass transfer.

### **343 Unit Operations II (4)**

Prereq: 200. (spring) Stagewise processes including distillation and extractions. 3 lec, 2 lab.

### **344 Unit Operations III (5)**

Prereq: 343, 331. (winter) Continuation of 342. See 342 for description. 4 lec, 2 lab.

### **363 Chemical Engineering Lab I – Synthesis and Analysis I (3)**

Prereq: 342, MATH 340. (winter) Lab emphasizing use of digital computers for analyzing chemical engineering problems. 1 lec, 2 lab.

### **400 Applied Chemical Engineering Calculations (5)**

Prereq: 344, 304, MATH 340. (spring) Solution of ordinary differential equations of chemical engineering, series solutions, Laplace transforms, computer synthesis and analysis, unsteady heat transfer, packed and real tower design.

### **415 Chemical Engineering Lab III (3)**

Prereq: 344, 304 (fall) Lab practice to illustrate principles of selected unit operations, thermodynamics and applied kinetics; and to aid student in gaining confidence in handling of chemical engineering equipment. Development of ability to devise and conduct chemical engineering experiments with minimum supervision and to report results satisfactorily stressed.

### **416 Chemical Engineering Lab IV (3)**

Prereq: 344, 304 (spring) Continuation of 415 See 415 for description

### **417 Chemical Engineering Lab V (2)**

Prereq: 416 442 (winter) Continuation of 442 2 lec, 2 lab.

### **418 Chemical Engineering Lab VI – Materials (2)**

Prereq: 331 (fall, winter, spring, summer) Demonstrations and experiments supporting relationships which exist between structure and properties of ceramic, metallic and polymeric materials 4 lab

### **419 Chemical Engineering Lab VII – Advanced Materials (1-3)**

Prereq: perm Individual and small group investigation of advanced problems involving chemical, mechanical, physical, or design parameters of materials, materials structure, or fabrication. Investigations may involve ceramics, metals, polymers, or composites. 2 lab for each hr of credit

### **421 Unit Processes (3)**

Prereq: 344, with 344 or perm (winter) Typical inorganic and

organic processes, with emphasis on application of thermodynamic and kinetic theory and on raw material and energy sources, to design and operation of these processes. 3 lec.

### **430 Metallic Corrosion (4)**

Prereq: 418. (spring) Basic principles of corrosion including electrochemical foundation, influence of environment, stress, strain, and structure. Selected lab experiments. 4 lec.

### **433 Physical Metallurgy (4)**

Prereq: 418. Mechanisms, kinetics and crystallography of reactions in metallic solids. Selected lab experiments for illustration of principles. 4 lec.

### **442 Process Control and Simulation (4)**

Prereq: 344, 400, 414. (fall) Simulation and control of chemical processes. Feedback control using root loci and Bode diagrams is covered. 3 lec, 2 lab.

### **443 Chemical Engineering Design (5)**

Prereq: 304 or perm. (fall) Preliminary process design of chemical plant and its economic evaluation plus additional detail design problems. Involves a trip, which usually lasts 3 days, to various chemical plants. Student responsible for own expenses on this trip. 3 lec, 2 rec.

### **444 Chemical Engineering Design (4)**

Prereq: 443. (winter) Continuation of 443. See 443 for description.

### **445 The Application of Engineering Design to the Environment (3)**

Prereq: 443 or perm. Use of chemical engineering fundamentals to approach a socially significant problem. Students expected to research problem and come up with definite specific solutions which they will then evaluate. 3 lec.

### **452 Introduction to Transport Phenomena (3)**

Prereq: 344, 400. Heat mass and momentum transfer from a theoretical basis. Presentation of boundary-layer theory and its comparison with other theoretical and semi-theoretical approaches. 3 lec.

### **460 Atmospheric Pollution Control (3)**

Prereq: 303 or ME 321 or perm. Sources of air pollution from major industries, internal combustion engines, and other sources. Techniques available for measuring particulate and gaseous pollutants in atmosphere and at their sources. Techniques available for control and future possibilities for control of air pollution. Bases for air pollution legislation. 3 lec.

### **471 Physical Chemistry of Macromolecules (3)**

Prereq: CHEM 454. Effects of structure and molecular weight on physical and chemical properties of macromolecules. Topics include molecular weight distribution, solubility, polymer conformation, different types of polymers, synthesis, and reactions. Both synthetic and natural polymers considered.

### **474 Introduction to Polymer Engineering (4)**

Prereq: 342 and 471 or 477 or perm. For students with little or no experience in production and fabrication of polymeric materials. Emphasis on subjects of melt rheology, extrusion, and injection molding of polymeric materials.

### **477 Introduction to Polymer Synthesis (4)**

Prereq: 304 or with 305. To develop a thorough understanding of mechanisms, kinetics, and systems used for synthesis of polymeric materials. Effect of synthesis variations upon properties and reactor design also discussed.

### **480 Colloquium (1)**

Prereq: sr rank (winter) Lectures, mainly by speakers outside the engineering field, on cultural and professional subjects, with discussion moderated by speakers. 1 lec.

### **490 Special Investigations (1-3, max 9)**

Prereq: perm Individual or small group work, under staff guidance, in research or advanced study in a particular field of chemical engineering

### **491 Chemical Engineering Honors (1-18, max 20)**

Prereq: 3.5 accum or above, satisfactory departmental evalua

tion of potential. Independent departmental honors research resulting in a thesis. Credit-noncredit.

## ENGINEERING, CIVIL

### 210 Plane Surveying (4)

Prereq: ET 180 or perm. (fall, spring) Basic theory and field practice in measurement of distance, elevation, and angle; introduction to photogrammetry. 3 lec, 3 lab.

### 220 Statics (4)

Prereq: MATH 263C or with 263C. Laws of equilibrium of forces, friction, centroids, and moment of inertia. Not open to srs. 4 lec.

### 222 Strength of Materials (4)

Prereq: grade of C or better in 220 or perm. Simple stresses and strains, bending, torsion, beam deflection, columns, and combined stresses. 4 lec.

### 223 Strength of Materials Laboratory (1)

Prereq: 222 or with 222. Testing of various materials under axial compression, tension, flexure, torsion, impact. Use of electrical, mechanical, and photoelastic strain measuring equipment. 2 lab.

### 311 Route Engineering (4)

Prereq: 210 or perm. (winter) Horizontal and vertical curves; geometric design of highways; earthwork distribution; introduction to engineering economy. 4 lec.

### 330 Structural Theory I (5)

Prereq: minimum grade of C or better in 222 or perm. (fall) Determinacy requirements for beams, frames, and trusses; shear and bending moment diagrams for beams and frames, truss analysis using method of joints, sections, and graphics; influence line calculations for beams and trusses; deflection calculations for statically determinate trusses. 3 lec, 2 tutorial.

### 331 Structural Theory II (3)

Prereq: minimum grade of C in 330 and MATH 211 or perm. (winter) Indeterminacy conditions for beams, frames, and trusses; general method of analysis; moment distribution method; slope deflection method; conjugate beam method; force method; displacement method, computer applications. 3 lec.

### 340 Fluid Mechanics (5)

Prereq: grade of C or better in ME 224 or perm. Statics and dynamics of viscous and nonviscous fluids, dimensional analysis and similitude, 1-dimensional gas dynamics, pipe flow, principles of lift and drag, introduction to boundary layers. 5 lec.

### 341 Fluid Mechanics Laboratory (1)

Prereq: 340 or with 340. Laboratory techniques, calibration principles, fluid and flow measurements. 2 lab.

### 342 Applied Hydraulics (3)

Prereq: 340. (spring) Flow and pressure distribution in multi-loop networks, dynamics of flow in pumps and turbines, uniform and nonuniform flow in open channels, culvert hydraulics, hydraulic transients. 2 lec, 2 lab.

### 343 Hydrology (4)

Prereq: 340, ISE 304 or with ISE 304. (spring) Precipitation and runoff data; groundwater hydraulics; infiltration; peak runoff calculations. Application to water resource problems. 4 lec.

### 361 Transportation Engineering (4)

Prereq: 311; nonmajors by perm. (spring) Comparative analysis of various modes of transportation, with emphasis on inherent advantages and disadvantages of each; planning process applied to transportation facilities. 4 lec.

### 370 Soil Engineering (4)

Prereq: grade of C or better in 222 or perm, and GEOL 283. (winter) Soil compositions, physical and chemical properties, and classifications; water movement and seepage problems; consolidation and shear strength; applications to earth struc-

tures, retaining walls, slope stability, bearing capacity, and settlement. May be taken as 570 for graduate credit except by civil engineers. 3 lec, 2 lab.

### 410 Surveying II (3)

Prereq: 210. (spring) Triangulation; astronomical observations; land surveying; instrument adjustments; special topics. 2 lec, 3 lab.

### 415 Photogrammetry (3)

Prereq: 210 or perm. (winter) Equipment and methods used in aerial photography and land measurement. 2 lec, 2 lab.

### 423 Continuum Mechanics (4)

Prereq: 321, MATH 340. (spring) Matrix methods in mechanics and structures; laws of dynamics; mechanical properties of solids and fluids, basic theories of continuum mechanics. 4 lec.

### 424 Strength of Materials II (3)

Prereq: 222. (fall) Unsymmetrical bending, shear centers, columns, and a continuation of basic topics usually taught in Strength of Materials I. 3 lec.

### 425 Advanced Strength of Materials (4)

Prereq: 222 and perm. (fall) Advanced treatment of theories of failure, stresses, and strains at a point, cross shear, unsymmetrical bending, curved beams, torsion, thick-walled cylinders, finite elements. Graduate-level course open to selected undergraduates. 4 lec.

### 426 Theory of Stability (3)

Prereq: 222 and perm. (winter) Buckling of columns, beam columns, plates, and rings. 3 lec.

### 427 Experimental Stress Analysis (3)

Prereq: 424 or 425. (spring) Experimental methods of stress determination including photoelasticity, stress coat and electric strain gauge techniques; stress analogies; strain rosettes for combined stress determinations. Graduate-level course open to selected undergraduates. 2 lec.

### 428 Theory of Elasticity and Applications (3)

Prereq: 222, MATH 340 and perm. (fall) Equations of equilibrium and compatibility; stresses and strains in beams, curved members, thick cylinders, and structural member torsion. Graduate-level course open to selected undergraduates. 3 lec.

### 429 Mathematical Theory of Elasticity (3)

Prereq: 428. (winter) Fundamental equations and problems of elasticity theory; methods of stress functions and displacement potentials; finite element applications. Graduate-level course open to selected undergraduates. 3 lec.

### 432 Structural Design in Concrete (4)

Prereq: minimum grade of C in 330 or perm. (winter) Materials and properties; design methods, strength of rectangular sections subject to bending moments, axial loads, and shear forces either separately or in combination; continuity in concrete construction; design of one-way slabs; design of T-sections in bending; retaining wall design; deflection calculations; footing design. 3 lec, 1 tutorial.

### 433 Structural Design in Steel (4)

Prereq: minimum grade of C in 330 or perm. (winter) Materials and properties; design methods, design of tension members; structural fasteners; welding; design of compression members; design of beams; design of connections; design of trusses; design of frames; plastic design of beams and frames. 3 lec, 1 tutorial.

### 434 Structural Design (3)

Prereq: 432, 433, 331. (spring) Design of complete structures or major components of structures. 3 lec.

### 435 Advanced Structural Theory (3)

Prereq: minimum grade of C in 330 and 331 or perm. (winter) Finite difference solutions of beams; numerical integration solutions for beams; buckling solutions using numerical integration; plate solutions using numerical methods; column analogy method; energy methods; computerized applications; analysis of folded plates; analysis of cylindrical shells; elements of structural dynamics. Grad-level course open to selected undergrads. 3 lec.



**437 Advanced Structural Design (3)**

Prereq: minimum grade of C in 432 or 433 or perm. (spring) Designer, codes, and contracts; connections in concrete design; jointing in concrete construction; connections in steel design; design of slender columns in concrete and steel; design of columns for biaxial bending; design of a 4-story concrete and steel framed building; design of concrete and steel beams for torsion; design of 2-way slab systems; design of masonry structures. Grad-level course open to selected undergrads. 3 lec.

**443 Open Channel Hydraulics (3)**

Prereq: 340. (spring) Principles of uniform and varied flow. Channel design for uniform flow, gradually varied flow profiles, channel transition, hydraulic jumps, flow in prismatic and non-prismatic channels. Graduate-level course open to selected undergraduates. 3 lec.

**446 Potential Flow Theory (3)**

Prereq: 340 and/or perm. (fall) Inviscid flow theory. General equations of fluid dynamics, study of potential flow. Graduate-level course open to selected undergraduates. 3 lec.

**447 Viscous Flow Theory (3)**

Prereq: 340 and/or perm. (winter) Mechanics of fluid resistance, laminar and turbulent flow. Applications to external boundary layer flow and to flow in ducts. Graduate-level course open to selected undergraduates. 3 lec.

**450 Water Treatment (3)**

Prereq: 342-343, CHEM 123. (fall) Sources and collection of public water supplies; principles of treatment processes. 3 lec.

**451 Wastewater Treatment (3)**

Prereq: 342, 343. (winter) Quantities and collection of municipal wastewater; principles of treatment processes. 3 lec.

**452 Water and Wastewater Analysis (3)**

Prereq: CHEM 123. (fall) Laboratory methods and interpretation of results for chemical and bacteriological examination of water and wastewater. 2 lec, 3 lab.

**455 Water Treatment II (4)**

Prereq: 450, 452, or perm. (winter) Theory; design of treatment units; laboratory experiments demonstrating basic principles. 3 lec, 3 lab.

**456 Wastewater Treatment II (4)**

Prereq: 451, 452, or perm. (spring) Theory; design of treatment units; laboratory experiments demonstrating basic principles. 3 lec, 3 lab.

**457 Water Resources Engineering (3)**

Prereq: 343 or perm. (winter) Elective sr civil engineering course designed to provide an integrated treatment of water resources engineering, including hydrological measurements, runoff, ground water, water law, reservoir design, frequency analysis, economics, planning, flood control, and water-quality control. Systems approach to multi-purpose water resource projects will be emphasized. 3 lec.

**458 Water Quality Engineering (3)**

Prereq: perm. (spring) Natural and man-made characteristics of water quality, changes in quality resulting from use, criteria for control of stream pollution, methods of improving water quality, also legal, economic, and institutional aspects. Graduate-level course open to selected undergraduates. 3 lec.

**462 Traffic Engineering (3)**

Prereq: 361, nonmajors by perm. (winter) Vehicle and driver characteristics, uses of traffic control devices, intersection design and capacity, parking characteristics. 3 lec.

**463 Traffic Parameters (4)**

Prereq: perm. (fall) Vehicle highway relationships, including vehicle performance and highway geometry. Consideration of highway capacities and their influence on design. 4 lec.

**464 Transportation Data Methods (4)**

Prereq: perm. (winter) Introduction to traffic survey methods, data collection, and evaluation. Topics include origin-destination, speed, parking, accident, and future development studies. 4 lec.

**465 Traffic Regulations and Controls (4)**

Prereq: perm, 463. (spring) Typical traffic ordinances and regulations and their utilization to control traffic through use of signs, markings, and control devices. Traffic signals, including their use as single units or as a progressive series. 4 lec.

**467 Traffic Studies I (1-4)**

Prereq: 464. (spring) Practical problems relating to traffic surveys and data analysis.

**468 Traffic Studies II (1-4)**

Prereq: 465. (winter) Practical problems relating to vehicular characteristics and traffic movements.

**471 Foundation Engineering (3)**

Prereq: 370. (fall) Design and construction problems in soil engineering; subsurface investigation, foundation selection and design criteria; principles of design of shallow and deep foundations, site improvement. 3 lec.

**472 Soil Mechanics I (3)**

Prereq: 370. (fall) Water movement through soil, construction and interpretation of flow nets. Elastic equilibrium and stress distributions. Compressibility and settlement of cohesive and non-cohesive soil; consolidation theory. 2 lec, 2 lab.

**473 Soil Mechanics II (3)**

Prereq: 472. (winter) Stability of footings (bearing capacity), retaining walls, and slopes. 2 lec, 2 lab.

**474 Soil Mechanics Laboratory (1)**

Prereq: 472 and 473. (spring) Advanced techniques for measurement of soil engineering properties. 3 lab.

**475 Advanced Foundation Engineering (3)**

Prereq: 471. Design of shallow and deep foundations for complex or unusual soil conditions; design of earth retaining structures including retaining walls, cofferdams, and sheetpile bulkheads; site improvement; performance evaluation and instrumentation. 3 lec.

**476 Soil Stabilization (4)**

Prereq: 370. (fall) Engineering, geological, and pedological soil classification systems. Mineralogy of clay minerals and clay-water systems; requirements for and factors affecting soil stability. Methods and mechanisms of soil stabilization; design and testing stabilized soils. 3 lec, 2 lab.

**481 Pavement Design (3)**

Prereq: 370. (spring) Types and uses of various paving materials and mixtures; theory and practice in design, construction, and maintenance of various types of highway and airport pavements. 2 lec, 2 lab.

**482 Paving Materials and Mixtures (3)**

Prereq: perm. (winter) Types, constituents, chemical behavior, tests, specifications, and uses of bituminous materials, Portland cements, and aggregates in pavements. Design and manufacture of paving mixtures and construction of pavements. 2 lec, 3 lab.

**483 Principles of Pavement Design (3)**

Prereq: 370. (spring) Fundamentals of wheel loads and stresses in pavements. Properties in pavement components and tests. Design methods and evaluations. 3 lec.

**490 Special Investigations (1-5)**

Prereq: perm. (fall, winter, spring, summer) Special investigation or problem not covered by formal courses. Permits well-qualified student to pursue individual study under direction of faculty member.

## ENGINEERING, ELECTRICAL

**111 Consumer Electronics (2)**

(fall, spring) Provides useful purchasing and other decision making information such as explanations of specifications, and descriptions of operation of consumer grade high-fidelity equip



ment. Topics included are audio amplifiers, pre-amplifiers, loud-speaker systems, phonographs, phono cartridges, AM and FM tuners, receivers, tape decks, tape selection, headphones, noise reduction systems, 4-channel (quad) sound equipment.

**150 Electronic Arts in Music (2) (2A)**  
(fall, spring) Survey of range of electronic techniques used in reproduction and synthesis of musical sounds. Basic acoustics, music amplifiers, analog and digital music synthesizers, computer music, keyboard electronic instruments, and trends in musical instrument engineering covered with selected demonstrations of hardware.

**210 Circuit Analysis I (4)**

Prereq: MATH 263A. (fall, winter) Basic concepts and definitions, units, DC circuit analysis, Kirchhoff's laws, source transformations, mesh and nodal analysis, network theorems, magnetic circuits. 3 lec plus 2 hrs computation.

**211 Circuit Analysis II (4)**

Prereq: 210 and MATH 263B. (winter, spring) Continuation of 210. Inductance and capacitance, DC transients, periodic functions, average and RMS, complex numbers, phasors, sinusoidal steady state circuit analysis. 3 lec plus computation.

**212 Circuit Analysis III (4)**

Prereq: 211. (fall, spring, summer) Continuation of 211. AC network theorems, coupled circuits, frequency response, poly-phase circuit analysis. 3 lec plus computation.

**221 Instrumentation and Computation Laboratory II (3)**

Prereq: 210 and/or with 211. (winter, spring) Theory and applications of laboratory instruments. Laboratory experimentation involving electrical and magnetic phenomenon.

**222 Instrumentation and Computation Laboratory III (3)**

Prereq: 221 and/or with MATH 340. (spring, summer) Fundamentals of analog computation and analog computer experiments. Theory and applications of laboratory instruments. Laboratory experimentation.

**222A Analog Computation (2)**

Prereq: perm. (winter) Fundamentals of system simulation using analog computer including equation formulation, magnitude scaling, and time scaling. Laboratory experimentation using analog computers. Primarily for transfer students from 2-yr technical institutes.

**232 Analytical Foundations of Electrical Engineering (5)**

Prereq: MATH 340 or with MATH 340 and EE 211. (spring, summer, fall) Vector analysis with applications to electromagnetic fields. Matrix theory with applications to state variable formulation of linear and nonlinear systems. Complex variable theory with applications to systems, in preparation for Laplace transforms, etc. Special analytical techniques for the solution of complex electrical engineering problems with emphasis on computer-oriented techniques.

**250A Electrical Engineering I (4)**

Prereq: perm. (summer) Special course in direct current and alternating current analysis using calculus, primarily for transfer students from 2-yr technical institutions.

**250B Electrical Engineering II (4)**

Prereq: perm. (summer) Continuation of 250A, including 3-phase circuits (balanced and unbalanced), transients, frequency response, etc.

**301 Intermediate Laboratory I (1)**

Prereq: concurrent with 340. Intermediate-level lab in practical electronics designed to provide exposure to devices and circuits discussed in corequisite lecture course.

**302 Intermediate Laboratory II (1)**

Prereq: concurrent with 341. Extension of 301.

**303 Intermediate Laboratory III (1)**

Prereq: 331. Experiments in energy conversion including transformers and rotating machinery.

**304 Basic Electrical Laboratory I (1)**

Prereq: 313, or with 313. (fall, winter) Lab supplement to 313. Basic instruments and circuit measurements. 2 lab.

**305 Basic Electrical Laboratory II (1)**

Prereq: 304 and 314, or with 314. (winter, spring) Lab supplement to 314. Operation of electronic devices, transformer, and rotating machines. 2 lab.

**310 Linear Systems and Networks I (4)**

Prereq: 212 or 313. (fall, winter) Fourier series, Fourier integral and transforms, direct and inverse Laplace transformation with associated theorems, network theorems, flow graphs, and Z-transforms.

**312 Linear Systems and Networks II (4)**

Prereq: 310. (spring, fall) State equations and their formulation, time domain solution of state equations, integral solution by convolution, difference equations and discrete state equations, 2-port parameters and interconnections, and system stability.

**313 Basic Electrical Engineering I (3)**

Prereq: MATH 263B. DC, steady-state single phase AC, balanced polyphase, and magnetic circuits. Not open for credit to electrical engineering majors. 3 lec.

**314 Basic Electrical Engineering II (3)**

Prereq: 313. Electronic devices, models. Not open for credit to electrical engineering majors. 3 lec.

**321 Electromagnetics and Materials I (4)**

Prereq: 212, 232. (winter, spring) Introductory treatment of static electric and magnetic fields in free space and stationary matter and physical properties of fields, charges, and currents. Included are: electromagnetic field vectors and field equations, boundary conditions, Poisson's equation, solutions of Laplace's equation for scalar electric and magnetic potentials, vector potential, polarization and magnetization charges and currents, and a unified macroscopic treatment of fields in matter. Electromagnetic energy.

**322 Electromagnetics and Materials II (4)**

Prereq: 321. (spring, summer, fall) Continuation of 321. Discussion of time-varying, electromagnetic fields. Application of field theory to solution of problems from various branches of electrical engineering with emphasis upon physical interpretation. Included are: relation of field theory to circuit theory, Poynting's theorem, stored energy and power flow, complex fields and power, TEM waves, uniform plane wave, wave reflection and refraction.

**330 Energy Conversion I (4)**

Prereq: 212. (fall, winter) Principles of energy conversion utilizing both electrostatic and electromagnetic forces. Properties of magnetic materials including study of eddy-current and hysteresis effects. Single phase and polyphase transformers theory and applications.

**331 Energy Conversion II (4)**

Prereq: 330. (winter, spring) Direct current generators and motors, revolving field theory; polyphase induction motors including motor theory and equivalent circuits. Synchronous alternator and motor theory including synchronous condenser applications for power-factor correction.

**340 Electronics I (4)**

Prereq: 212, MATH 263C. (fall) Introduction to semiconductor properties, devices, and applications. Formation of n- and p-type materials, junctions. Properties of diodes and bipolar transistors. Application of semiconductor devices to digital circuits. Introduction to combinational and sequential logic.

**341 Electronics II (4)**

Prereq: 340, MATH 340. (winter) Continuation of 340. Application of semiconductor devices to analog circuitry. Small-signal parameters, low-frequency amplifier design, feedback amplifiers, frequency response. Large-signal amplifiers and power supplies.

**381 Internship in Electrical Engineering (1-3)**

Prereq: jr rank and perm. (fall, winter, spring, summer) Super-

vised work-study program, in electrical engineering profession, in established industrial environment. Credit dependent on advanced registration and mutual agreement between faculty supervisor and participating company. May be repeated; however, hrs applied for graduation limited by dept.

#### **401 Advanced Laboratory I (1-3)**

Prereq: 303 or perm. (fall, winter, spring) Advanced lab format follows that of intermediate lab. Student-proposed projects are design- or research-oriented and directed by a faculty member specializing in area of investigation. Portion of this lab required in conjunction with certain electrical engineering 400-level lecture courses. Student taking 400-level electrical engineering courses must register for minimum of 1 credit hr of advanced lab per qtr — 5 credit hrs of advanced lab required for graduation.

#### **402 Advanced Laboratory II (1-3)**

Prereq: 303. (fall, winter, spring) See 401 for description.

#### **403 Advanced Laboratory III (1-3)**

Prereq: 303. (fall, winter, spring) See 401 for description.

#### **405 Semiconductor Principles (3)**

Prereq: 322 and 341. (on demand) Simplified 1-dimensional band theory of solids. Valence and conduction band occupancy from Fermi-Dirac statistics. Hole conduction and doping. Derivation of PN junction volt-amp-temperature characteristic. DC and AC characteristics of junction transistors derived from fundamentals.

#### **406 Advanced Analog Circuits (3)**

Prereq: 341. (spring) Advanced analog circuitry. Operational amplifiers, characteristics, limitations. Linear and nonlinear applications. Feedback, stability criteria, compensation, time, and frequency response. Waveform generation and shaping, timing, comparison, arithmetic operations.

#### **407 Advanced Digital Circuits (3)**

Prereq: 341. (fall) Advanced digital circuitry. Basic logic operations, digital device families, and characteristics. Arithmetic, counting, memory, other MSI and LSI functions. Numeric display devices. Analog/digital conversion.

#### **408 Advanced Electronic Circuits III (3)**

Prereq: 406. (on demand) Solid-state communications circuitry. Receiver principles and design; stability and gain considerations. Transmitter and modulator principles and design; power gain, high frequency matching networks.

#### **409 Solid State Instrument Design (3)**

Prereq: 341. Electronic instruments and instrument subassemblies including amplifiers, waveform generators, oscilloscopes, TVMs, DMMs, A/D and D/A converters, etc. using state of the art solid state devices, both discrete and integrated.

#### **411 Passive Filter Synthesis (3)**

Prereq: 312. (fall) Principles of filter synthesis, positive-real functions, synthesis of 1-port networks, synthesis of 2-port networks, approximation, frequency transformations, and filter design.

#### **412 Active Filter Synthesis (3)**

Prereq: 411. (winter) Principles of active filter synthesis, active filter elements, realization of active 2-port networks, multiple feedback filters, explicit formulas and practical filter design, and active filter design using optimization.

#### **413 Digital Filter Design (3)**

Prereq: 411 and 412. Principles of digital filter design, Z-transform, discrete Fourier transform, representations of digital filters, digital filter design techniques, and computer methods in digital filter design.

#### **425 Automatic Control I (3)**

Prereq: 312 or with 312. (fall) Formulation of linear models for lumped-parameter physical systems, fundamental principles of closed-loop control, signal flow graphs, Routh-Hurwitz criteria, Root locus method, Bode plots, introduction to control system using Root locus and Bode plots.

#### **426 Automatic Control II (3)**

Prereq: 425. (winter) Nyquist stability criterion, Nichols charts,

cascade and feedback compensation, frequency domain performance specifications, minor loop design.

#### **427 Automatic Control III (3)**

Prereq: 426. (spring) Sampled-data systems, Z-transforms, sampled-data system design using digital compensators; carrier control systems; state-space concepts, designing of control systems using state variable feedback.

#### **430 Theory of Measurement (3)**

Prereq: 341. Dynamics of AC and DC instruments, null measurement techniques, statistical errors, transducers, mechanical magnetic movements, digital instruments, calibration, accuracy, and repeatability.

#### **440 Microwave Theory and Devices (3)**

Prereq: perm. (fall) High frequency generation and transmission of electromagnetic energy, transmission lines, wave-guides, impedance matching, transient analysis, microwave sources, laboratory demonstrations.

#### **441 Antennas (3)**

Prereq: perm. (winter) Basic definitions and theorems, vector potential, small antennas, arrays, wire antennas, aperture antennas, multi-frequency antenna design, pattern synthesis, discussion of practical examples.

#### **442 Introduction to Radar and Aircraft Navigation Systems (3)**

Prereq: 322 or perm. (spring) Discussion of radar as applied to aviation requirements of surveillance, approach and landing, weather avoidance; presentation of principles of VOR, DME, RNAV, ILS, ADF, Loran, Omega.

#### **443 Electromagnetics I (3)**

Prereq: 322, MATH 340. (fall) Mathematical review of vector operations in Cartesian and curvilinear coordinates. Solution of wave equation in Cartesian coordinates and application to wave reflection from interfaces between general media. Decomposition of wave solutions into TE, TM, and TEM waves, with application to waveguides and transmission lines; solution of wave equation in cylindrical coordinates, with application to circular waveguide, radiation from line sources, and scattering from cylindrical objects.

#### **450 Control of Electrical Machinery (3)**

Prereq: 331. Magnetic and electronic motor controllers including study of control theory and application to given problems.

#### **451 Symmetrical Components (3)**

Prereq: 331. (fall) Circuits analysis by symmetrical components, representation of unbalanced polyphase currents and voltages by component symmetrical sets, solutions of faults on power systems, unbalanced operation of power equipment, single-phase induction motor analysis.

#### **452 Power Transmission (3)**

Prereq: 331 and 322. (winter) Economic and electrical principles of electrical power lines, mechanical principles of transmission line design and environmental effects.

#### **453 Power Distribution (3)**

Prereq: 452 or perm. (spring) Subtransmission systems, distribution substations, primary and secondary distribution; description, specification, application, and selection of conductors, cables, capacitors, circuit breakers, related protective relays, instrument transformers, meters, transformers, fuses, load break switches, isolators, and other elements used in power distribution; arrangements and applications of different types of distribution substations, distribution panels, system grounding, and emergency generation.

#### **454 Electrical Design (3)**

Prereq: 331. Design relationship of electrical machinery, including design of machine and predetermining of its performance.

#### **458 Power System Stability Studies (3)**

Prereq: 331, 451 or perm. (winter) Problems pertaining to stability of large power systems, both synchronous and asynchronous loadings, maximum use of digital computer tech-

niques, and matrix algebra. Each student will present paper on individually assigned problems.

#### 460 Hybrid Computation and Digital Simulation (3)

Prereq: perm. (spring) Solutions of problems on analog/digital computers and on analog computers with programmable logic. Digital simulation languages. Solutions of engineering problems by digital simulation.

#### 461 Digital Systems I (3)

Prereq: 341. (fall) Postulates and fundamental theorems of Boolean algebra; algebraic and map methods for design of combinational logic and simple sequential circuits; logic minimization methods; introduction to system design using shift registers, counters, etc.

#### 462 Digital Systems II (3)

Prereq: 461. (winter) Basic concepts from theory of finite-state machines; analysis and synthesis of sequential circuits; study of state assignment; synchronous and asynchronous machines; system design using integrated circuits.

#### 463 Digital Systems III (3)

Prereq: 462. (spring) Basic partition theory for sequential machine design. Synthesis of machines using ROMs and RAMs. Introduction to computer organization and design including selection of instruction set, definition of functional characteristics of subsystems, and implementation of control logic.

#### 470 Communication Engineering (3)

Prereq: 312 and 341. (fall) Unified approach to communications stressing principles common to all transmission systems. Review of Fourier series. Fourier integral and complex frequency techniques with emphasis on communication networks, time response and convolution, measurement of information, amplitude modulation (double and single side-band techniques), frequency modulation, sampling theory, pulse modulation systems, fundamentals of random signal theory and its application to communication systems, noise and its effect on conventional modulation systems; noise figure, noise suppression techniques, and other related topics.

#### 471 Statistical Analysis (3)

Prereq: 312. (winter) Analysis of engineering problems using probabilistic and statistical concepts: probability, discrete and continuous random variables, distribution functions, means, moments, characteristic functions, statistical independence, correlation, estimation, and applications to engineering problems.

#### 472 Random Signals in Linear Systems (3)

Prereq: 471 or perm. (spring) Introduction to random electrical signals and noise. Autocorrelation, crosscorrelation, power spectra, Nth law detectors, matched filters, detection of signals in noise, optimum receivers, Bayes estimators.

#### 481 Internship in Electrical Engineering (1-3)

Prereq: sr rank and perm. (fall, winter, spring, summer) Supervised work-study program, in electrical engineering profession, in established industrial environment. Credit dependent on advanced registration and mutual agreement between faculty supervisor and participating company. May be repeated; however, hrs applied for graduation limited by dept.

#### 488 Analysis of Engineering Problems (3)

Prereq: perm. Basic philosophy, methodology, and viewpoint developed for solution determination. Comparison made for applicability of empirical and theoretical analytical techniques to both linear and nonlinear situations. Characterization via mathematical models utilized for problem synthesis. Trade-off studies as practical technique for parameter value selection and influence-effect relationships.

#### 490 Selected Topics (1-3)

Prereq: perm. Selected topics of current interest in electrical engineering.

#### 490A Space Communications (3)

Prereq: 312 and 341. (on demand) Communications links with examples taken from space applications. Includes considerations

of data encoding, modulation technique, antenna gains, space loss, system noise, and demodulation techniques.

#### 490B Electric Energy System Engineering (3)

Prereq: 458 or perm. (spring) Principles of economic operation and control of isolated or interconnected electric power systems. Generation system expansion planning including production cost methods. Probabilistic simulation of power systems.

#### 490G Direct Energy Conversion (3)

Prereq: 342, ME 321. Photovoltaic converters, magnetohydrodynamics, fuel cells, thermoelectric converters.

#### 490H Propagation of Radio Waves (3)

Prereq: 322. (no regular schedule) Review of fundamentals of electromagnetic waves, ground wave propagation, surface wave, wave propagation in ferrites, properties of ionosphere, and sky wave propagation.

#### 490I Introduction to Plasma Dynamics (3)

Prereq: 321, 322. (no regular schedule) Review of electromagnetic theory, motion of charged particles in given electromagnetic fields. Magnetoionic theory, propagation, and excitation of waves in plasma.

#### 490J Antennas II (3)

Prereq: perm. (spring) Analysis and synthesis of linear and planar radiating systems; Fresnel and near zone regions; traveling wave antenna design; antenna theorems; mathematical and numerical techniques.

#### 490Q Advanced Polyphase Machines (3)

Prereq: 331. (spring) Generalized machine theory, transient behavior of polyphase synchronous and induction machines.

#### 490T Distributed Circuits (2)

Prereq: 212. Basic equations, propagation of DC transients and pulses on lossless transmission lines, steady-state waves on lossless and lossy lines, Smith chart for impedance and admittance, impedance matching.

#### 490U Small Microprocessor Systems (3)

Prereq: 407. (winter) Introduction to microprocessor capabilities and limitations. Timing considerations, essential storage, interfacing to controlled plant. Examples of microprocessor control of small plants.

#### 490W Mini- and Microcomputers I (3)

Prereq: perm. (fall) Organization of several minicomputer and microcomputer systems. Theory and application of assemblers, loaders, etc. Numerous control and data acquisition problems programmed in assembly language on existing computers. Applications in wide range of areas studied.

#### 490X Mini- and Microcomputers II (3)

Prereq: 490W. (winter) Continuation of 490W.

#### 490Y Digital Processing of Signals (3)

Prereq: 312. (on demand) Digital techniques for various signal-processing applications. Emphasis on design and realization of digital algorithms for performing specific filtering function. Topics include sampled-data signals, discrete-time system analysis, frequency response and realization of discrete-time systems, infinite impulse response digital filter design, finite impulse digital filter design, discrete and fast Fourier transforms.

#### 490Z PCM Telemetry Systems (3)

Prereq: 471 or perm. (on demand) In-depth study of pulse code modulation systems using total system error (sampling error, quantization error, and channel error). Uniform and nonuniform quantization; companding  $\mu$ - and A-law; optimum quantization, coding, DPCM (differential pulse code modulations), LDM (linear delta modulation), ADM (adaptive delta modulation). Comparison of systems and trade-off analysis.

## ENGINEERING GRAPHICS

See Industrial Technology.

# ENGINEERING, INDUSTRIAL AND SYSTEMS

## 231 Introduction to Industrial and Systems Engineering (2)

Prereq: MATH 263A. (fall) Overview of history and functions of industrial and systems engineering. Topics discussed include historical perspective, production engineering, plant location, plant layout, work measurement and design, job evaluation, production control, quality control, engineering economy, linear programming, and project management. 2 lec.

## 300 Principles of Industrial Engineering (3)

Prereq: perm. (fall) Survey course covering traditional industrial engineering concepts and practices such as engineering economy, plant location, plant layout, work methods, work measurement, production control systems (including CPM and PERT), inventory control, and quality control. Not for ISE undergraduate majors. 3 lec.

## 304 Applied Engineering Statistics (3)

Prereq: MATH 163B or MATH 263B or perm. Introduction to efficient methods for data collection and analysis. Application of basic statistical tests, techniques and experimental design concepts to engineering and science data problem areas. 3 lec.

## 305 Engineering Statistics I (3)

Prereq: MATH 263C or perm. Introduction to applied probability and statistics. Evaluation of experimental data, testing hypotheses, confidence levels, and statistical prediction. 3 lec.

## 306 Engineering Statistics II (3)

Prereq: 305 or perm. Continuation of 305. 3 lec.

## 330 Engineering Economy (3)

Comparing alternatives for acquisition of capital assets, expenditure of operating monies, and income generation. Topics include equivalence, annual cost method, present worth method, rate of return method, depreciation, benefit/cost, breakeven analysis, income taxes, equipment replacement, and risk. 3 lec.

## 333 Work Design (5)

Prereq: 304 or 305 or perm. (fall) Design of work systems and measurement of work. Topics include job methods, operation analysis, charting techniques and schematic models, stop-watch time study, work sampling, predetermined time systems, standard data, incentive wage systems, learning curves. 3 lec, 2 lab

## 336 Project Management (3)

Development and utilization of network techniques, such as PERT and CPM, to schedule activities, develop financial budgets, allocate resources, and control progress and costs of practical projects. Students will be introduced to use of available computer programs that generate project schedules. 3 lec.

## 381 Internship in Industrial and Systems Engineering (1-3)

Prereq: perm. Supervised work-study program, in industrial and systems engineering profession, in established industrial or government environment. Credit dependent upon advanced registration and mutual agreement between faculty supervisor and participating company. Course may be repeated, however, hours applied for graduation limited by department.

## 407 Design and Analysis of Experiments (3)

Prereq: 304 or 306 or equiv. or perm. (spring) Design and analysis of engineering experiments approached from linear statistical model point of view. Blocking designs, full and fractional factorial designs, analysis of variance, and introduction to response surface methodology. 3 lec.

## 410 Decision Theory I (3)

Prereq: 304 or 305 or perm. Introduction to decision theory, utility theory and applications. Decision making under risk. Inventory bidding, purchasing, maintenance, and investment applications. 3 lec.

## 411 Decision Theory II (3)

Prereq: 304 or 305 or perm. Bayesian decision theory and applications covering both profit and nonprofit institutions. 3 lec.

## 415 Introduction to Systems Engineering (3)

Prereq: 305 or equiv. FORTRAN. Introduction to systems engineering concepts. Systems structure, open-loop and closed-loop systems, positive and negative feedback. Applications to production and inventory systems, population, and physical systems. Design project required. 3 lec.

## 417 Analytical Foundations of Industrial and Systems Engineering (3)

Prereq: 305, MATH 263C, or perm. (fall) Special analytical techniques introduced for solution of complex industrial and system engineering problems. Calculus of finite differences, Fourier analysis, and use of transform techniques in linear system analysis discussed. Probability implications of transforms emphasized.

## 422 Seminar on Occupational Safety and Health (3) (2A)

Prereq: perm. Historical development of workman's compensation and industrial health and safety; review of federal activities in occupational health and safety with focus on contemporary public policy and risk/benefit issues. Specific occupational health and safety issues are dealt with in seminar format.

## 423 Seminar on Transportation Systems (4)

Prereq: 305. Transportation systems analysis design, and related topics. Emphasis on industrial and systems engineering approaches to analysis and synthesis. Topic concentration varies from qtr to qtr.

## 424 Nonlinear Analytical Techniques (3)

Prereq: perm. Nonlinear phenomena and classification of singularities. Role of forcing function. Solutions found through methods of residues and variation of parameters. Applications to adaptive controlled systems and optimal controlled systems and other organized structures. 3 lec.

## 425 Statistical Design and Analysis of Controlled Systems (4)

Prereq: 305 or equiv or perm. Applied statistical techniques in selective design and evaluation of controlled systems. Tolerances, errors, and variations in parameters of systems viewed in terms of probabilistic distributions and effects on output parameters. Value standards such as reliability and maintainability of equipment and man-machine systems treated.

## 427 Digital Computer Systems I (3)

Prereq: COBOL or FORTRAN. (fall) Overview of digital computer systems. Programming, storage organization, and search. Number representations, conversions, and elementary arithmetic operations. Addressing and instruction sequencing. Multiprogramming, multiprocessing, and real-time systems.

## 428 Digital Computer Systems II (3)

Prereq: COBOL or FORTRAN or perm. (winter) Continuation of 427. See 427 for description.

## 432 Inventory and Manufacturing Control I (3)

Prereq: 305 or with 305. (fall) Design of inventory and manufacturing control systems. Forecasting, continuous and periodic review inventory systems. Relationship between production schedules and inventory. Production scheduling systems; sequencing models, dispatching rules. 3 lec.

## 433 Industrial Computer Applications (5)

Prereq: 304 or 305, FORTRAN or perm. (winter) Simulation of industrial problems utilizing digital computers. Stresses user-oriented programs. Applications include use of library routines and simulation languages such as CSMP and GPSS. Projects involving design of simulation programs required.

## 434 Network Analysis (3)

Prereq: 305 or with 305. (fall) Engineering project planning using such techniques as PERT and critical path method, flow graphs, GERT, and other network models. 3 lec.

## 435 Quality Control and Reliability (3)

Prereq: 304 or 306 or perm. (winter) Application of statistics to control of quality and reliability in products and services. Design

of acceptance sampling and process control systems, including attention to inspection and test methods. Design and implementation of quality assurance programs, including nonstatistical dimension, also treated. 3 lec.

#### **439 Information Systems Engineering (3)**

Prereq: FORTRAN. Design of industrial information systems including automatic storage, retrieval, and transmission of data.

#### **440A Industrial Plant Design I (2)**

Prereq: 333, 445A or perm. (winter) Introduction to 2-qtz project in which students design a manufacturing facility. 1st qtr topics include product determination, plant location, analysis of drawings, estimation of production time for each operation and production scheduling and inventory control.

#### **440B Industrial Plant Design II (3)**

Prereq: 440A. (spring) Continuation of 440A with emphasis on selection of equipment, incentive wage system, quality control system, project management, and layout of facility using both computer and conventional techniques.

#### **441 Introduction to Operations Research (3)**

Prereq: 305 or perm. (fall) Basic methodology of operations research. Applications and mathematical structure of linear models, linear and dynamic programming, queueing theory, and other modeling techniques. 3 lec.

#### **442 Inventory and Manufacturing Control II (3)**

Prereq: 305 or perm. (winter) Branch and bound scheduling algorithms, horizon planning, control of integrated production, inventory and workforce systems, linear decision rules. 3 lec.

#### **443 Work Design in a Technological Society (3)**

Prereq: perm. Exploration of interaction between industrial and systems engineering and labor as an institution. Arbitration, technological change, and work organization. 3 lec.

#### **444 Fundamentals of Mathematical Programming (3)**

Prereq: MATH 211 or perm. (winter, summer) Linear programming theory and practice. Topics include simplex method, 2-phase method, dual problem, and sensitivity analysis. 3 lec.

#### **445A Systems Design I (3)**

Prereq: perm. (fall) Design methodology and principles. Identification and definition of design project.

#### **445B Systems Design II (3)**

Prereq: 445A. (spring) Individual or small-group system design project continued from 445A.

#### **446 Design and Analysis of Maintenance Systems (3)**

Prereq: 304, 330, 333. (spring) R. Smith. Intended to provide industrial engineering students with working knowledge of maintenance systems and ability to design maintenance system. Will stress application of analytical and quantitative industrial engineering techniques to maintenance management. Major emphasis will be on design of maintenance systems. Guest lectures, field trips, and term project which requires students to design maintenance system for manufacturing company, using quantitative industrial engineering techniques, are integral parts of course.

#### **448 Human-Machine Systems (3)**

Prereq: 304 or 305 or perm. (spring) Role of operator as subsystem in human-machine systems. Design principles for information displays, equipment controls, workplace environments, and life support systems. Design project required. 3 lec.

#### **451 Human-Machine Systems Engineering Design (3)**

Prereq: sr rank or perm. Effects of physical environmental stressors on human in human-machine systems examined and appropriate counter measures designed. Stressors include heat, cold, noise, vibration, lighting, radiation. Design project required.

#### **489 Special Investigations (1-6)**

Prereq: perm.

#### **490 Advanced Problems in Computer Applications (1-6)**

Prereq: perm. Special investigations of advanced industrial and

systems engineering problems involving use of digital or analog computers.

## ENGINEERING, MECHANICAL

#### **224 Dynamics (4)**

Prereq: PHYS 251, grade of C or better in CE 220 or perm. Motion of particles and rigid bodies, work and energy, impulse and momentum. 4 lec.

#### **290 Elements and Systems Laboratory (2)**

Prereq: 224, PHYS 253 or concurrent with 224, PHYS 253. Introduction to measurement of various phenomena frequently encountered in practice of mechanical engineering. Strain, temperature, pressure, flow rate, acceleration, displacement, behavior of linear and nonlinear elements measured. Emphasis given to interpretation of data, as well as its measurement.

#### **301 Kinematics of Machines (3)**

Prereq: grade of C or better in 224. Analytical and graphical solutions of motion problems involving mechanical elements: linkages, gears, cams and mechanical trains, etc. Static and inertia forces, friction, energy storage, and balancing in machines and mechanisms.

#### **302 Dynamics of Machinery (3)**

Prereq: 301. Static and inertia forces, friction, energy storage, and balancing in machines and mechanisms. Analysis and design considerations of dynamic aspects of machines and their components.

#### **313 Metal Processing (3)**

Prereq: CE 222. Structure of metals, mechanics of metal forming and metal cutting. Analysis of forces, energy requirements, and temperature effects. Interrelationship between metal processing and mechanical properties.

#### **321 Introduction to Thermodynamics (4)**

Prereq: PHYS 251, MATH 263A, B, C. Basic engineering thermodynamics. Definitions, first law, properties and property relations, second law, availability, applications to engineering problems.

#### **322 Introduction to Thermodynamics Lab (2)**

Prereq: 321, CE 340 or concurrent with these courses. Instruments and measurements, applications to simple thermal machines. Comparison of measurements with theory, elementary computer simulations. Report writing. Two 2-hr sessions per wk.

#### **328 Applied Thermodynamics (5)**

Prereq: grade of C or better in 321. Nonreactive and reactive mixtures, compressors, analytical studies of gas and vapor power cycles, and refrigeration. 5 lec.

#### **381 Internship in Mechanical Engineering (1-3)**

Prereq: jr level and perm. Supervised work-study program, in the mechanical engineering profession, in an established industrial environment. Credit dependent on advanced registration and a mutual agreement between faculty supervisor and the participating company. Course may be repeated; however, the hours applied for graduation are limited to a maximum of six (6). Also listed as 481.

#### **400 Heating, Ventilation, and Air Conditioning (3)**

Prereq: jr rank. Description and evaluation of heating, air conditioning, and total-energy systems employed to provide thermal environments for buildings ranging in scope from residences to integrated commercial, apartment, or industrial complexes. Covers human comfort, psychrometrics, load analysis, techniques, equipment, and controls.

#### **401 System Analysis and Control (4)**

Prereq: MATH 340. Modeling and formulations of physical systems. Transient and steady-state dynamic responses, and other fundamental theory of automatic controls and applications. 3 lec, 1 lab.

**402 Fluid Mechanisms and Controls (3)**

Prereq: perm. (on demand) Fluid mechanics associated with fluid control, survey of flow control devices, fluid amplifier principles, digital logic, analysis, and synthesis of fluid control systems.

**403 Machine Design I (4)**

Prereq: 313, CHE 331, grade of C or better in CE 222. Applications of mechanics, mechanisms, materials, and mechanical processes to design and selection of machine members and units of power transmission.

**404 Machine Design II (4)**

Prereq: 403. Morphology of engineering design. Applications of statistics and probability and techniques of optimization to design. Team design project.

**406 Advanced Kinematics (4)**

Prereq: 301. Analysis and synthesis of planar and 3-dimensional mechanisms using classical and modern analytical approaches. Structural synthesis of mechanisms, dimensional synthesis of linkages for function generation, path generation, and for rigid-body guidance. Applications of matrix methods, optimization techniques, and computer solutions.

**407 Fundamentals of Nuclear Engineering (4)**

Prereq: perm. Nuclear engineering, including nuclear reactions, radiation detection and measurement, reactor criticality, principles of reactor control, radiation shielding, effects of radiation on materials, uses of radioactive materials.

**408 Nonlinear Vibrations (3)**

Prereq: perm. Qualitative and numerical study of mathematics and physics of nonlinear systems. Formulations of nonlinear engineering problems, solutions techniques, and stability analysis.

**409 Advanced Engineering Dynamics (3)**

Prereq: 224. Theoretical analysis and applications of dynamical aspects and problems of machines and their components.

**411 Cryogenic and Vacuum Fundamentals (4)**

Prereq: 321, 412. (arranged) Production of low temperatures and pressures, molecular transport, diffusion through solids, radiation heat transfer, high-performance insulators, low-temperature heat transfer, 2-phase flow, superconductivity.

**412 Heat Transfer (5)**

Prereq: grade of C or better in ME 321, CE 340, MATH 340, ET 240. Basic concepts of conduction in 1 or more dimensions, steady and transient modes. Radiation, fundamentals of convection in various modes, heat exchanger design. 5 lec.

**413 Conduction and Radiation Heat Transfer (4)**

Prereq: perm. Advanced analytical treatment of conduction and radiation heat transfer. Boundary value problems, orthogonal expansions, moving heat sources, multi-dimensional problems with time varying boundary conditions, finite difference analysis, conformal transformations, radiation network matrix analysis, diffuse-specular exchange Monte Carlo techniques, etc.

**417 Design of Thermal Systems (4)**

Prereq: 321, 328, 412. Design of systems in which thermodynamics, transport behavior, and optimization techniques are major considerations. Emphasis on total design approach including factors such as cost and reliability. Typical systems include power, propulsion, environmental, cryogenic. Design project and report required.

**418 Mechanical Engineering Experimentation (1)**

Prereq: ME sr or grad rank. Instruction in experimental procedure and experience in designing and executing lab experiments. Students plan and execute their own experiments to acquire answers to assigned problems. Variety of areas covered including control systems, energy conversion, fluid flow, heat transfer, motion measurements, stress-strain. Instructional guidance provided by entire mechanical engineering staff. Provides familiarity with variety of instrumentation and procedures. 3-qr sequence with experimental subjects phased with prerequisites.

**419 Mechanical Engineering Experimentation (1)**

Prereq: ME sr or grad rank. Continuation of 418. See 418 for description.

**420 Mechanical Engineering Experimentation (1)**

Prereq: ME sr or grad rank. Continuation of 419. See 418 for description.

**424 Gas Dynamics I (3)**

Prereq: CE 340 or perm. 1- and 2-dimensional compressible flow-isentropic flow, flow with heat transfer, friction, shocks, generalized 1-dimensional flow. Applications to propulsion systems. 3 lec.

**425 Vehicle Propulsion Systems (4)**

Prereq: 424. Applications of basic engineering disciplines to design and analysis of vehicle propulsion systems. Extensive use of digital computers. Term report required.

**427 Power Station Engineering (3)**

Prereq: 321. Fuels, principles of combustion, stationary boilers, grates, stokers, furnaces, coal pulverizers, economizers, preheaters, superheaters, stacks, forced and induced draft, boiler-feed pumps, heat balances, and hydro power. 3 lec.

**430 Applied Thermodynamics Lab (3)**

Prereq: 322, 328. Sr lab course involving more complex experiments on steam turbines, boilers, combustion, pumps, air compressors, heat transfer, and refrigeration. Three 2-hr sessions per wk.

**440 Direct Energy Conversion (4)**

Prereq: perm. (on demand) General principles of unconventional energy conversion. Thermoelectricity, thermionics, MHD, fuel cells, photo voltaics, wind systems, solar systems and energy storage.

**450 Computer-Aided Design (4)**

Prereq: 403, 412, 491, or perm. Applications of contemporary computer-modeling techniques to solve complex problems in stress, heat transfer, dynamic systems, and fluid flow. Emphasis given to applications of these techniques to solve specific problems in mechanical-engineering design.

**455 Robotics (3)**

Prereq: 224, EE 314, ET 240, or perm. Principles of design of computer-based, intelligent machines. Robot characteristics, microprocessor/microcomputer fundamentals, input-output sensors and actuators, computer achievement of machine kinematics, robot-control techniques, laboratory experience in microprocessor-machine interfacing.

**475 Solar Design (3)**

Prereq: jr/sr rank, MATH 263C, PHYS 253, or equiv. Introduction to theoretical principles and practical design aspects of solar energy systems. Topics covered include principles of radiation; heating load computation; air and liquid, flat-plate collectors; concentrating collectors; energy storage; photovoltaic conversion; economic analysis.

**480 Colloquium (1)**

Prereq: sr rank. Open presentation of individual engineering analysis or design effort. Requires demonstration of individual analytical or design ability and satisfactory oral presentation techniques.

**481 Internship in Mechanical Engineering (1-3)**

Same as 381. See 381 for description.

**484 Projects in Thermal Machinery (3)**

Prereq: perm, good academic record. Research in thermal machines. Individual work on experimental or analytical project involving current problems. Training in use of library, theory and use of instruments, error analysis, planning of experiments, effective report writing. Students should elect 2 term sequence to allow adequate time for completion of meaningful project. Report required.

**485 Projects in Thermal Machinery (3)**

Prereq: perm, good academic record. Continuation of 484. See 484 for description.



**486 Projects in Thermal Machinery (3)**

Prereq: perm, good academic record. Continuation of 484-485. See 484 for description.

**489 Special Investigations (1-6)**

Prereq: perm.

**491 Mechanical Vibrations I (3)**

Prereq: MATH 340, grade of C or better in ME 224, srs, grad. Characteristic phenomena of mechanical vibrations encountered in machines and structures (of 1-degree of freedom) and their quantitative investigation. Simple harmonic motion; free, transient, and forced vibrations; damping effects.

**492 Mechanical Vibrations II (4)**

Prereq: 491, grade of C or better in 491, perm. Application of matrix methods; 2-degree of freedom systems; lumped mass systems with several degrees of freedom, and methods for normal mode determination, 4 lec.

**493 Lubrication and Bearing Analysis (3)**

Prereq: perm. Concepts of boundary, hydrostatic, and hydrodynamic lubrication. McKee, and Boyd and Raimondi methods. Solid lubrication, porous bearings, gas bearings.

**494 Advanced Machine Design (3)**

Prereq: perm. Advanced considerations in design and analysis of machine members, strength under combined stress, thermal stress, fatigue in metals, plastic behavior of metals. 3 lec.

**495 Introduction to Kinetic Theory and Statistical Thermodynamics (4)**

Prereq: perm. (arranged) Kinetic theory, classical and quantum statistical mechanics with applications to engineering devices. 3 lec.

**496 Experimental Methods in Design (3)**

Prereq: 403, perm. Investigation and evaluation of experimental methods that may be used to obtain design and performance data. Techniques of photoelasticity, strain measurements, and vibration measurement.

**497 Methods of Engineering Analysis I (4)**

Prereq: MATH 340 or perm. Methods of analyzing equilibrium and eigenvalue problems in mechanical engineering and engineering mechanics; matrix methods, variational methods, numerical methods.

## ENGLISH

### English Language and Literature Humanities

The major requirement for the A.B. degree consists of at least the following 42 hours above 199: a) 200, b) 312 and 313 and 314, c) 301 or 302 or 303, d) 307 or 351 or 352, e) 321 or 322, f) 360 or 361 or 362, and g) 460. Completion of these courses automatically completes the College of Arts and Sciences requirement of nine hours in the major at the junior-senior level.

An intensive, two-year major program by tutorial instruction is offered by the English Department, beginning each fall term. Information is available from the chairman.

Students who wish to major in creative writing will take 20 hours of creative writing, 15 of which will be in addition to the requirements for an English major, and five of which will be 453 instead of 460. At the discretion of the director, a student may substitute five hours of 308, Advanced Composition, for five hours of creative writing.

Honors work in English: see "Departmental Honors" under Honors Tutorial College. For general English requirements, see the College of Arts and Sciences section of this catalog.

English minor: A minor in English consists of a minimum of 24 hours in a cluster designed by the student and receiving the approval of the department's Undergraduate Committee on an individual basis. This must include at least two courses at or

above the 300 level. In accordance with an Arts and Sciences policy no courses elected to fulfill the composition requirement may count as part of the minor.

## English Language and Literature

**150 Fundamental Usage Skills (4)**

Prereq: placement or recommendation (but notice that credit for 150 will not be given any student who has passed any higher-level English course). Only students with severe writing disabilities should enroll in 150; students who are merely weak or anxious about their preparation should enroll in 172 and seek concurrent tutoring from the Academic Advancement Center. Does not satisfy Arts and Sciences humanities requirement. (Nonnative speakers should take 150F.)

**160 English for Foreign Students (5)**

Prereq: nonnative speakers of English only, perm of OPIE. Principles and practice of close reading and writing of nonliterary prose. Reading practice focuses on developing skill in recognition of features of form and style characteristic of written expository English necessary for satisfactory comprehension. Writing practice is limited to expository prose, with emphasis on principles of organization, methods of development of ideas, and expression in acceptable English idiom.

**171 Topics in Literature (5) (1E)**

Prereq: fr and soph only. Group of courses similar in structure and purpose but different in topic. Reading literature and writing essays. Students receive practice and instruction in writing coherent, intelligent, persuasive prose and are evaluated primarily by that means. As preparation for the several (at least 5) short papers required, students will read fiction, poetry, and sometimes drama (mostly 20th century) chosen for relevance to topic of course and then discuss their understanding of issues and worlds presented. Fulfills University freshman English composition requirement. Those with major writing deficiencies should take 150 (see description). Separate topics offered:

- 171A: Literature of Initiation
- 171B: Afro-American Experiences in Literature
- 171D: Man and Woman: Images in Literature
- 171F: Literature of Vision and Fantasy
- 171H: The Comic Mode in Literature
- 171I: Literature of Moral Conflict
- 171K: Contemporary Literature

Specific course descriptions with text lists are advertised quarterly in Ellis Hall.

**172 Contemporary Writing Skills (5) (1E)**

Prereq: fr and soph only. Focuses on writing expository essays which are well organized and logically coherent. Students write approximately 10 essays (5,500 words). Essay topics come from personal experience or from reading nonfiction. Not a grammar course; those who require services of a tutor in correcting sentence errors should consult the Academic Advancement Center. (Nonnative speakers should take 172F.)

**173S Special Topics in Literature (5) (1E)**

Prereq: fr and soph only. (Offered quarterly) Similar in structure and purpose to 171, but each section — topic and texts — is designed by person who teaches it. Specific topics advertised at preregistration.

**175S Contemporary Issues: Special Topics (5)**

Prereq: fr and soph only. (Offered rarely) Similar in structure and purpose to 171, but each section — topic and texts — is designed by person who teaches it.

**200 Introduction to Literature (4) (2H)**

Prereq: 5 hrs above 100. Approaches to reading and interpretation of literature, emphasizing skills, techniques, and language of interpretation.

**201 Interpretation of Fiction (5) (2H)**

Prereq: 5 hrs above 100. Forms and techniques of the art of fiction.



**202 Interpretation of Poetry (5) (2H)**

Prereq: 5 hrs above 100. Intensive reading of selected poems from all periods of English and American literature and study of forms and techniques.

**203 Interpretation of Drama (5) (2H)**

Prereq: 5 hrs above 100. Analysis of dramatic forms.

**204 Introduction to International Literature I: The Classical Tradition (5) (2H)**

Prereq: 5 hrs above 199. Selected classical texts, sometimes alone and sometimes in conjunction with modern texts, for purpose of defining classical sensibility in western literature.

**205 Introduction to International Literature II: Romantic Tradition (5) (2H)**

Prereq: 5 hrs above 199. Will deal with esthetic and philosophical concepts that have formed Romantic Tradition in western literature. Concentration on works by German, English, and French writers.

**206 Introduction to International Literature III: The Modern Tradition (5) (2H)**

Prereq: 5 hrs above 199. Selected literary works which provide background for and express modern sensibility in western literature.

**210 Critical Approaches to Popular Literature (4) (2H)**

Prereq: 5 hrs above 100. Introduction to techniques of literature and literary criticism using books from that area where serious literature and popular literature meet.

**270 Special Studies: Individual or Comparative Authors (2-3) (2H)**

Prereq: 5 hrs of English. Intensive focus, short-term course (5 wks) in individual or comparative authors: 270A Medieval, B Renaissance, C Restoration and 18th Cent., D 19th Cent. American, E 19th Cent. British, F 20th Cent. American, G 20th Cent. British, H Continental.

**271 Special Studies: Selected Themes or Topics in Literature (2-3) (2H)**

Prereq: 5 hrs of English. Intensive focus, short-term course (5 wks) in selected themes or topics: 271A Poetry, B Fiction, C Drama, D Comparative Genres, E Language, F Stylistics and Rhetoric, G Literature and Film, H Criticism.

**280 Expository Writing and the Research Paper (4)**

Prereq: 5 hrs above 100. Intermediate-level writing course offering practice in library research, techniques of documentation, and writing the research paper.

**301 Shakespeare, The Histories (4) (2H)**

Prereq: 5 hrs above 199. History plays.

**301A Shakespeare, Selected Plays and Poems (3) (2H)**

Prereq: 5 hrs above 199. Selected tragedies, histories, and comedies with related poems. Examination of themes, characters, and language. Recommended for nonmajors. Not duplicated by 301.

**302 Shakespeare, The Comedies (5) (2H)**

Prereq: 5 hrs above 199. Comedies.

**302A Shakespeare: Selected Plays and Poems (3) (2H)**

Prereq: 5 hrs above 199. Continuation of 301A. See 301A for description. Not duplicated by 302.

**303 Shakespeare, The Tragedies (5) (2H)**

Prereq: 5 hrs above 199. Principal tragedies.

**303A Shakespeare: Selected Plays and Poems (3) (2H)**

Prereq: 5 hrs above 199. Continuation of 301A and 302A. See 301A for description. Not duplicated by 303.

**304 English Bible (5) (2H)**

Prereq: 5 hrs above 100. Selected prose and poetry of Old and New Testaments.

**305J Technical Writing (4) (1J)**

Prereq: 5 hrs above 100. Focuses on writing of clear and concise proposals, feasibility reports, progress reports, and descriptions of mechanisms and technical processes.

**306A Studies in Oriental Literature (5) (2T)**

(fall) Introduction to cultural background of Oriental literature.

**306B Studies in Oriental Literature (5) (2T)**

Prereq: 306A. (winter) Continuation of 306A. Study of classical Oriental literature.

**306C Studies in Oriental Literature (5) (2T)**

Prereq: 306B. (spring) Continuation of 306A-B. Study of modern Oriental literature.

**307 The Structure of American English (5)**

Prereq: 10 hrs above 199. Study of a grammar of English using a linguistic model chosen from contemporary linguistic theories. Course inevitably has a dual focus: on facts of English usage and on theories linguists have created to organize and explain them. Instructor may wish to present a complete grammar (phonology, morphology, syntax) or a portion of one (e.g., syntax), or compare several grammars. Phonetics may be taught.

**308J Advanced Composition (5) (1J)**

Prereq: jr rank. Aim: to increase skills and expertise in writing of discursive prose. Method: regular practice and evaluation, supplemented by attention to professional prose and concepts in rhetoric and style.

**309 Creative Writing (5)**

Beginning course in creative writing. Will concentrate on processes of invention as they lead to works of fiction and poetry. Student manuscripts criticized; creative literary works of recognized importance analyzed; act of writing a continuing practice. A. Poetry; B. Fiction.

**310 McGuffey Lectureship in Literature (1-5)**

Prereq: 5 hrs. Special series of lectures offered by current McGuffey Visiting Professor of English. Subject announced each qtr. Number of lectures offered determines credit hrs assigned.

**312 Medieval and Renaissance English Literature (5) (2H)**

Prereq: 10 hrs above 199. Major works, writers, and genres and social norms of various periods of the language, and gives some attention to dialects.

**313 Restoration and Neoclassical English Literature (5) (2H)**

Prereq: 10 hrs above 199. Major works, writers, and genres of Restoration and Neoclassical period.

**314 Romantic and Victorian Literature (5) (2H)**

Prereq: 10 hrs above 199. Major works, writers, and genres of 19th century.

**315 American Literature (3) (2H)**

Prereq: 5 hrs of English or jr rank. Major and minor authors, themes, genres, etc., usually in 19th and 20th century American literature.

**316 English and Continental Literature (3) (2H)**

Prereq: 5 hrs of English or jr rank. Major and minor authors, themes, genres, etc. in English and European literature.

**317A American Literature by Black Authors (3) (2H)**

Prereq: 5 hrs of English or jr rank. Examines literature being written by black authors in America and attempts to assess quality and significance of this cultural contribution. (A) Emphasizes background materials, fiction, and autobiography of 19th and 20th centuries; (B) emphasizes poetry, but includes further reading in recent fiction and nonfiction prose; (C) emphasizes drama, continues study of new trends in poetry.

**317B American Literature by Black Authors (5) (2H)**

Prereq: 5 hrs of English or jr rank. Continuation of 317A. See 317A for description.

**317C American Literature by Black Authors (5) (2H)**

Prereq: 5 hrs of English or jr rank. Continuation of 317A, B. See 317A for description.

**321 American Literature to the Civil War (5) (2H)**

Prereq: 10 hrs above 199. Major works, writers, and genres of American literature before the Civil War.

**322 American Literature Since the Civil War (5) (2H)**  
Prereq: 10 hrs above 199. Major works, writers, and genres of American literature since the Civil War.

**331 20th Century British and American Literature (5) (2H)**  
Prereq: 10 hrs above 199. Some major works, writers, and genres of British and American literature in this century.

**335 The Ohio University Writers (4)**  
Features personal visits to classroom by writers, to discuss their work with students, to answer questions from class, and to read from new work or work in progress.

**345 Readings in Children's Literature (4) (2H)**  
Prereq: 5 hrs above 199. Readings in classic and contemporary children's literature, together with consideration of historical development of children's literature, philosophical and esthetic bases, criteria of great children's literature.

**350 Traditional Grammar, Mechanics, and Usage (5)**  
Prereq: 5 hrs above 100 or perm. Concentrates upon grammatical understanding and awareness of relationships in sentence structure, including an understanding of incidental usage and punctuation.

**351 The History of the English Language (5)**  
Prereq: 10 hrs above 199. English, like every language, has been and is at present in a state of evolution. Course examines various kinds of changes to which it is subject: in sound patterns and in grammatical forms, in vocabulary and its semantic values. Shows origin and fate of various literary and social norms of various periods of the language, and gives some attention to dialects.

**352 The Development of American English (5)**  
Prereq: 10 hrs above 199. History of English language in America; topics covered are comparison of British and American English, phonetic transcription, sources of American English in 17th-century British dialects, development of major regional dialects on east coast and their movement westward, archaic speech of Appalachia and other relic areas, black English, Noah Webster's spelling book and dictionaries, background of controversy over correctness in America.

**360 Major English Authors (4) (2H)**  
Prereq: jr or sr rank or perm. Studies 1 or 2 British authors with view to providing extensive knowledge of writer's or writers' esthetic tactics, themes, or career developments. Writers to be studied named in subtitle.

**361 Major American Authors (4) (2H)**  
Prereq: jr or sr rank or perm. Studies 1 or 2 American authors with view to providing extensive knowledge of writer's or writers' esthetic tactics, themes, or career developments. Writers to be studied named in subtitle.

**362 Major International Authors (4) (2H)**  
Prereq: jr or sr rank and perm. Studies 1 non-English speaking writer, or two writers, one or both of whose native language is not English. Seeks to provide extensive knowledge of writer's or writers' esthetic tactics, themes, or career developments. Writers to be studied named in subtitle.

**385 History of Books and Printing (4)**  
Prereq: 5 hrs above 100. (fall) Introduction to history of the book and its place in development of western culture from ancient world to present. Approach is primarily historical, cultural, and esthetic rather than technical.

**393 Creative Writing Workshop: Short Story (5)**  
Prereq: 309 and perm. Instruction and practice in writing of fiction, concentrating on development of narrative techniques, character building in stories, staging scenes in a narrative, etc.

**394 Creative Writing Workshop: Nonfiction (5)**  
Prereq: 309 and perm. Will concentrate on writing nonfiction, and will explore general techniques of prose as they apply to fictionalized biography and the literary essay and as they are used to dramatize effectively works that are generally considered nonfiction.

**395 Creative Writing Workshop: Poetry (5)**  
Prereq: 309 and perm. Experience and language of poetry, and emphasis upon practice of writing poetry.

**450A Teaching Language and Composition (3)**  
Prereq: sr rank. Content and methods of presentation for teaching language and composition in high school. Not applicable to Arts and Sciences 200-level requirement.

**450B Teaching Literature (3)**  
Prereq: sr rank. Content and methods of presentation for teaching literature in high school. Not applicable to Arts and Sciences 200-level requirement.

**451 Studies in Criticism (5)**  
Prereq: 20 hrs above 100 and sr rank or perm. Some aspect of history and of problems in critical theory and its application.

**453 Form and Theory of Literary Genres (5)**  
Prereq: 10 hrs of creative writing. Intensive study of serious fiction or poetry or drama (in alternate offerings as needed) with emphasis on problems writer faces in literary composition.

**455 English Education Workshop (1-5)**  
Prereq: teaching certificate or equiv or perm of instructor. Studies in principles, problems, approaches, and issues in teaching of English from elementary school to post-secondary. Topics determined according to need and demand.

**457 Readings in English Education (5)**  
Prereq: jr rank. Recent developments and writings in English education and their possible application to the teaching of jr and sr high school English.

**460 Literary Genres (4)**  
Prereq: jr or sr rank or perm. Intensive study of selected literary genre in selected period. Genre and period indicated in subtitle.

**461 Colloquium (5)**  
Prereq: sr rank. (fall) Specific interdisciplinary problems to be assigned each qtr.

**462 Colloquium (5)**  
Prereq: sr rank. (winter)

**463 Colloquium (5)**  
Prereq: sr rank. (spring)

**470 Special Studies (5)**  
Prereq: sr rank. Selected literary topics and studies.

**490 Independent Reading (1-15)**  
Prereq: perm. Directed individual reading and research.

**496 Advanced Workshop in Creative Writing (4)**  
Prereq: 10 hrs of creative writing and perm. Will consist largely of independent work in a particular literary genre. Students will meet together or individually with instructor, according to needs of particular work of that qtr.

**H499 Honors Project (5-15)**  
Prereq: perm. Completion of individual writing project for BA with honors in English.

## Humanities

**107 Humanities – Great Books (3)**  
Prereq: fr and soph only. (fall) Ancient classics of western civilization (Greek, Roman, Biblical) leading toward understanding of cultural heritage. Guidance in critical thinking, reading, and writing about those works.

**108 Humanities – Great Books (3)**  
Prereq: fr and soph only. (winter) Medieval and Renaissance classics of western civilization. See 107 for further description.

**109 Humanities – Great Books (3)**  
Prereq: fr and soph only. (spring) Modern classics of western civilization (18th-20th centuries). See 107 for further description.

**307 Humanities – Great Books (3)**

Prereq: jr and sr only. (fall) Ancient classics of western civilization (Greek, Roman, Biblical) leading toward understanding of cultural heritage. Guidance in critical thinking, reading, and writing about those works.

**308 Humanities – Great Books (3)**

Prereq: jr and sr only. (winter) Medieval and Renaissance classics of western civilization. See 307 for further description.

**309 Humanities – Great Books (3)**

Prereq: jr and sr only. (spring) Modern classics of western civilization (18th-20th centuries). See 307 for further description.

## FILM

**201 Introduction to Film I (4) (2H)**

(fall) Examination of basic motion picture structure and esthetics; study of narrative modes. Wkly screenings.

**202 Introduction to Film II (4) (2H)**

Prereq: 201 or perm. (winter) Selected topics in narrative motion picture with emphasis on contemporary filmmakers. Wkly screenings.

**203 Introduction to Film III (4) (2H)**

Prereq: 201 or perm. (spring) Selected topics in experimental and documentary film modes with emphasis upon contemporary trends in medium. Wkly screenings.

**340 Film Techniques (3) (2H)**

Prereq: 201 or perm. Basic 8mm production techniques; organized as a beginning filmmaking workshop.

**341 Advanced Super-8 (4) (2H)**

Prereq: 340 or perm. Workshop in Super-8mm production for students working on independent film projects. Students should have their own cameras.

**361 Motion Picture Production I (3)**

Prereq: 340 or perm. (fall) Professional workshop in 16mm techniques; elementary film structuring; camera and lighting; editing; sound recording; laboratory preparation. Intensive exercise as individual filmmaker. Limited enrollment; admission by perm only.

**362 Motion Picture Production II (3)**

Prereq: 361. (winter) Continuation of 361. Admission by perm only.

**363 Motion Picture Production III (5)**

Prereq: 361 (spring) Continuation of 362. Admission by perm only.

**369 Survey of Film Animation (4)**

(summer) General survey of film animation; history and technique Wkly screenings

**451 Film Theory and Criticism I (4)**

Prereq: 201 or perm. (fall) Study of development of film theory with emphasis upon current trends in analysis of film structure. Wkly screenings

**452 Film Theory and Criticism II (4)**

Prereq: 451 or perm. (winter) Continuation of 451

**453 Film Theory and Criticism III (4)**

Prereq: 452 or perm. (spring) Continuation of 452.

**471 Film Topics Seminar (1-5)**

Prereq: perm. (fall) Investigation of selected motion picture topic announced in advance of registration. Orientation may be either scholarly-critical or production workshop. Topics and credit hours vary qtr to qtr

**472 Film Topics Seminar (1-5)**

Prereq: perm. (winter) See 471 for description

**473 Film Topics Seminar (1-5)**

Prereq: perm. (spring) See 471 for description

**480 Individual Production Problems (1-5)**

Prereq: perm. Production of a motion picture. May be repeated.

**481 Individual Readings (1-5)**

Prereq: perm. Readings and reports on works related to motion pictures. Reading list selected by student in consultation with faculty member. May be repeated.

**482 Independent Study (1-15)**

Prereq: perm. Advanced individual creative or scholarly work in film. May be repeated. Max 45 hrs.

## FINANCE

The finance major prepares professionals who are concerned with the development and utilization of funds for economic and social purposes.

Coursework is available in the fields of financial management, commercial banking, financial institutions, security markets, and risk and insurance.

In addition to the B.B.A. degree requirements, a student majoring in finance must complete 24 hours of finance courses at the 300- or 400-level including 327.

**102 Personal Money Management (4)**

Prereq: not open to jrs and srs. How to live better financially. Relation of personal goals to money management in terms of expenditures, savings, and tax considerations. Financial media that serve the individual such as life insurance, savings, securities, and consumer and mortgage credit.

**325 Managerial Finance (4)**

Prereq: ACCT 102 and jr rank (3rd qtr soph if finance major) or minor in business administration. Role of financial management in business enterprise; financial analysis; planning needs for short-term and long-term funds; planning for profits; capital budgeting; internal management of working capital and income; raising funds to finance growth of business enterprises.

**327 Banking and the Financial System (4)**

Prereq: ECON 101 or 301; and jr rank and perm. Functioning of commercial banking system and other financial institutions. Flow of funds and interest-price movements in money and capital markets. Supply of loanable funds and demand for funds in mortgage loan market, consumer credit market, corporate securities markets, and markets for government securities and municipal obligations. Consideration of effects on financial markets of Federal Reserve and Treasury policies.

**331 Risk and Insurance (4)**

Prereq: jr rank and perm. Social importance of risk and its place in personal, business, and national life, including principles and methods of handling risk. Special interest in technique of insurance.

**341 Investments (4)**

Prereq: 325 and perm. Principles in determination of investment media for individual and institutional portfolios. Sources of investment information; analysis of financial statements; investment risks and yields. Securities markets and their behavior.

**428 Management of Financial Institutions (4)**

Prereq: 327 or perm. Analysis of objectives, functions, practices, and problems of financial institutions as viewed by management of these institutions.

**432 Property and Casualty Insurance (4)**

Prereq: 331 and perm. Analysis of principal types of property and casualty insurance policies with respect to protection afforded policyholder, his or her obligations, and cost of protection. Policies studied include fire and extended coverage, allied lines, business interruption, inland marine, automobile, general liability, theft, and bonds. Subjects of risk, insurance law and multiple peril policies also covered.

**436 Life Insurance (4)**

Prereq: 331 and perm. Fundamental economics of life insur-

ance. Principles and practices of life insurance including types of contracts, group and industrial insurance, and annuities.

#### 442 Security Analysis (4)

Prereq: 341 and perm. Problems of selecting securities for various investment purposes. Industry structure, volume-price-cost relationships, management, financial position, terms of securities contracts, and market price behavior studied to determine attractiveness of securities. Portfolio construction considered.

#### 445 Portfolio Management (4)

Prereq: 341 and perm. Decision-making processes in management of individual and institutional securities portfolios. Theoretical foundations of portfolio selection and construction. Model-building and other criteria applicable to selection, risk-return tradeoffs, revision and evaluation of portfolio performance. Applications of computer technology and other quantitative techniques to different aspects of portfolio management.

#### 453 Real Estate Finance (4)

Prereq: 325 and perm. Financial and investment analysis in purchase and sale of real properties, including single-family dwellings and income properties. Income and risk analysis in real estate investment. Instruments of real estate finance and institutional arrangements in mortgage markets. Government and mortgage markets. Flow of funds and credit conditions in mortgage markets.

#### 455 International Finance (4)

Prereq: 325 or perm. Problems in international finance. Financing international trade and other transactions; foreign exchange market and exchange market and exchange rates; international payments system. Foreign central banking and current developments in international financial cooperation.

#### 461 Problems in Business Finance (4)

Prereq: 325 and perm. Case study of financial management in business enterprises. Planning current and long-run financial needs, profit planning, allocation of funds, raising funds, dividend policies, expansion and combination, recapitalization and reorganization.

#### 463 Capital Allocation (4)

Prereq: 325 and perm. Planning capital outlays. Methods for ranking investment proposals. Theories of financial structure and cost of capital. Approaches to investment decisions under conditions of uncertainty.

#### 465 Mathematical Analysis of Financial Decisions (4)

Prereq: 325 and perm. Application of quantitative methods to financial management, with special emphasis on systems approach to evaluating proposed financial decisions.

#### 491 Seminar (3, 4 or 5)

Prereq: perm. Selected topics of current interest in finance area.

#### 497 Independent Research (1-4)

Prereq: perm. Research in selected fields of finance under direction of faculty member.

#### 498 Internship (1-4)

Prereq: perm.

## FOREIGN LANGUAGES AND LITERATURES

### African and Asian Languages

(Department of Linguistics)

### Germanic, Romance, and Slavic Languages

(Department of Modern Languages)

### Greek and Latin Languages

(Department of Classical Languages)

## African and Asian Languages

(Department of Linguistics)

A major in African and Asian languages is not offered. An undergraduate seeking a certificate in African or Asian studies may choose three quarters of an appropriate African or Asian language as part of the course requirements.

### Chinese (Asian)

#### 111 Elementary Chinese (4) (2T)

(fall) Beginning course of a 3-qr 1st-yr sequence.

#### 112 Elementary Chinese (4) (2T)

Prereq: 111 or equiv. (winter) Continuation of 111.

#### 113 Elementary Chinese (4) (2T)

Prereq: 112 or equiv. (spring) Continuation of 112.

#### 211 Intermediate Chinese (4)

Prereq: 113 or equiv. (fall) First course of a 3-qr intermediate-level sequence.

#### 212 Intermediate Chinese (4)

Prereq: 211 or equiv. (winter) Continuation of 211.

#### 213 Intermediate Chinese (4)

Prereq: 212 or equiv. (spring) Continuation of 212.

#### 311 Advanced Chinese (4)

Prereq: 213 or equiv. (fall) Beginning of an advanced-level sequence.

#### 312 Advanced Chinese (4)

Prereq: 311 or equiv. (winter) Continuation of 311.

#### 313 Advanced Chinese (4)

Prereq: 312 or equiv. (spring) Continuation of 312.

### Hausa (African)

#### 111 Elementary Hausa (4) (2T)

(fall) Beginning course of a 3-qr 1st-yr sequence.

#### 112 Elementary Hausa (4) (2T)

Prereq: 111 or equiv. (winter) Continuation of 111.

#### 113 Elementary Hausa (4) (2T)

Prereq: 112 or equiv. (spring) Continuation of 112.

#### 211 Intermediate Hausa (4)

Prereq: 113 or equiv. (fall) First course of a 3-qr intermediate-level sequence.

#### 212 Intermediate Hausa (4)

Prereq: 211 or equiv. (winter) Continuation of 211.

#### 213 Intermediate Hausa (4)

Prereq: 212 or equiv. (spring) Continuation of 212.

#### 311 Advanced Hausa (4)

Prereq: 213 or equiv. (fall) Beginning of an advanced-level sequence.

#### 312 Advanced Hausa (4)

Prereq: 311 or equiv. (winter) Continuation of 311.

#### 313 Advanced Hausa (4)

Prereq: 312 or equiv. (spring) Continuation of 312.

### Indonesian/Malaysian (Asian)

#### 111 Elementary Indonesian/Malaysian (4) (2T)

(fall) Beginning course of a 3-qr 1st-yr sequence.

#### 112 Elementary Indonesian/Malaysian (4) (2T)

Prereq: 111 or equiv. (winter) Continuation of 111.

#### 113 Elementary Indonesian/Malaysian (4) (2T)

Prereq: 112 or equiv. (spring) Continuation of 112.

**211 Intermediate Indonesian/Malaysian (4)**

Prereq: 113 or equiv. (fall) First course of a 3-qr intermediate-level sequence.

**212 Intermediate Indonesian/Malaysian (4)**

Prereq: 211 or equiv. (winter) Continuation of 211.

**213 Intermediate Indonesian/Malaysian (4)**

Prereq: 212 or equiv. (spring) Continuation of 212.

**311 Advanced Indonesian/Malaysian (4)**

Prereq: 213 or equiv. (fall) Beginning of an advanced-level sequence.

**312 Advanced Indonesian/Malaysian (4)**

Prereq: 311 or equiv. (winter) Continuation of 311.

**313 Advanced Indonesian/Malaysian (4)**

Prereq: 312 or equiv. (spring) Continuation of 312.

**Swahili (African)**

**111 Elementary Swahili (4)**

(fall) Beginning course of a 3-qr 1st-yr sequence. (2T)

**112 Elementary Swahili (4)**

Prereq: 111 or equiv. (winter) Continuation of 111. (2T)

**113 Elementary Swahili (4)**

Prereq: 112 or equiv. (spring) Continuation of 112. (2T)

**211 Intermediate Swahili (4)**

Prereq: 113 or equiv. (fall) First course of a 3-qr intermediate-level sequence.

**212 Intermediate Swahili (4)**

Prereq: 211 or equiv. (winter) Continuation of 211.

**213 Intermediate Swahili (4)**

Prereq: 212 or equiv. (spring) Continuation of 212.

**311 Advanced Swahili (4)**

Prereq: 213 or equiv. (fall) Beginning of an advanced-level sequence.

**312 Advanced Swahili (4)**

Prereq: 311 or equiv. (winter) Continuation of 311.

**313 Advanced Swahili (4)**

Prereq: 312 or equiv. (spring) Continuation of 312.

**African and Asian Literatures in English**

Ohio University offers courses at both the undergraduate and graduate levels in the literatures of Africa and Asia. The Department of Linguistics teaches Southeast Asian literature and the Department of English teaches courses in African and Oriental literatures. Students wishing to fulfill requirements for the undergraduate certificate or the M.A. degree in either African or Southeast Asian studies should consult the departments concerned and the appropriate area studies director. (For description of the Southeast Asian literature courses see this page, for African and Oriental literatures, check page numbers in the index.)

**Southeast Asian Literatures in Translation**

**340 Traditional Literature of Southeast Asia (3)**

(winter) Survey of traditional literature of Southeast Asia in translation.

**345 Modern Literature of Southeast Asia (3)**

(spring) Survey of modern literature of Southeast Asia in translation.

**Modern Languages (Introductory Culture and Civilization; Professional Courses)**

Note: 250A-D, 410, and 445 do not count toward the major. With departmental approval, 250A-D may be applied to the humanities requirement.

**250A Field Studies in Austria (1-4, max 4)**

Prereq: perm. Designed to introduce participants in study abroad program to various aspects of life in target country.

**250B Field Studies in France (1-4, max 4)**

Prereq: perm. Designed to introduce participants in study abroad program to various aspects of life in target country.

**250C Field Studies in Mexico (1-4, max 4)**

Prereq: perm. Designed to introduce participants in study abroad program to various aspects of life in target country.

**410 The Language Laboratory: Media in Foreign Language Teaching (3)**

Prereq: foreign language courses numbered 213 or courses in linguistics. Use of language lab and associated media as correlated with modern language classroom; instruction in selection, preparation, and use of instructional materials and tests, and in successful operation of laboratory and classroom equipment. Required of majors who plan to teach.

**445 Teaching of Modern Foreign Languages (3)**

Prereq: perm. Not to be counted as hours above 200 for the A.B. degree. Study, demonstration, and use of methods and materials for effective modern foreign language instruction. Required of majors who plan to teach.

**Foreign Literatures in English**

The lectures and readings for these courses are in English and are aimed at the entire University community. While they are not to be counted for a major in a modern foreign language, these courses may be counted toward fulfilling a part of the requirements for the humanities of the College of Arts and Sciences. No credit toward meeting the foreign language requirement.

**334 Portuguese and Brazilian Literature in English (4)**

Literature of Portugal or literature of Brazil in English translation. May be repeated for credit when subject changes.

**335 Italian Literature in English (4)**

Famous literary works of best Italian authors, presented in English. May be repeated for credit when subject changes.

**336 Spanish Literature in English (4)**

Topics may deal with either Spanish or Latin American literature. May be repeated for credit when topic changes.

**337 French Literature in English (4)**

Literary works by authors of French expression, read and discussed in English. May be repeated for credit when subject changes.

**338A German Literature in English (4)**

Survey of masterpieces of German literature, presented in English. May be repeated for credit when subject changes.

**338B German Novel in English (4)**

Introduction to major German, Swiss, and Austrian novelists in English translation.

**339A Russian Literature in English (4)**

Survey of Russian literature from beginnings to revolution, presented in English.

**339B Soviet Literature in English (4)**

Major developments of Russian literature from 1917 to present day.

**Germanic, Romance and Slavic Languages**

(Department of Modern Languages)

Majors are offered in French, German, Russian, and Spanish. Advanced Russian courses are offered only upon sufficient demand. Students wishing to enroll in these courses must

consult with and secure permission from the department chairman prior to preregistration for the quarter in which enrollment is desired.

Major Code #s: French, #5221; German, #5222; Russian, #5224; Spanish, #5225.

The major requirement for the A.B. degree in French, German, or Russian is a minimum of 36 quarter hours beyond 213. In Spanish the requirement is 40 quarter hours beyond 213. Specific course requirements for French, German, and Russian are 341; 342; 343; 348 or 349; 355; 356; and at least 12 quarter hours at the 400 level which should include courses in both language and literature. Spanish majors must, in addition to these, complete course 354.

Language majors who participate in study-abroad programs are to take at least two 400-level courses in their major on the Athens campus. Spanish majors must take one of the following courses: 443, 444, 447, or 448 as part of the 400-level requirement. A modern languages major is not permitted to take courses in the major subject on the pass/fail basis. Should a student receive a D in a course required for the major, he or she must repeat the course until at least a C is made. Majors are strongly urged to study abroad in one of the department's centers. Suggested electives for majors are classical languages, comparative literature, cultural anthropology, English, fine arts, history of the country in the student's major interest, and linguistics. Language majors should acquire a reading knowledge of a second foreign language.

Requirements for the B.S. in education degree with a comprehensive program in a modern foreign language are stated in the *College of Education* section of this catalog. Students wishing to complete teacher certification requirements as A.B. degree candidates should refer to the *Arts and Sciences* section for an explanation of the requirements. Prospective teachers are urged to spend at least one quarter in a country of their major language.

A minor requiring a minimum of 21 hours of language courses beyond 213 is offered in French, German, Italian, Russian, or Spanish. A grade of C or better must be received in a course for those hours to count toward a minor. There are no specific course requirements, but the student should observe prerequisites and course sequences. A student should consult the chairman of the majors committee in modern languages to develop a minor.

A student who is being certified in one high school or special fields major can be certified in a language minor area (French, German, Russian, or Spanish) by completing 45 credit hours in the minor language, including: 341-342-343 (12 hours); one of 348, 349, 354, 355, or 356 (4 hours); one of 437 or 439 (3 hours); and two or more hours of literary studies. Depending on the student's background, up to 24 hours of beginning and intermediate language (111-213) may be waived, with the waived hours noted on the student's transcript.

Language laboratory facilities include 150 student booths with individual tape recorders. Classrooms have speakers connected to a high-fidelity central console which can provide recorded material for various classes.

The department has chapters of Delta Phi Alpha and Phi Sigma Iota. The following study abroad programs are available through the department: *Austria*: Spring Quarter in Salzburg offers courses Beginning through Advanced German. *France*: Spring Quarter in Tours offers courses Beginning through Advanced French. *Canada*: Summer Quarter in Quebec offers Beginning and Intermediate French, and History Department courses. *Mexico*: 1) Portales — Winter Quarter in Merida offers Intermediate Spanish and a course in Latin American Area Studies. 2) Zapata — Spring Quarter in Xalapa offers Beginning and Intermediate Spanish. 3) Olmeca — Summer in Xalapa (7 weeks) offers a wide range of courses, including some in English.

For information on the Honors Tutorial Programs in French, German, Russian, and Spanish, see catalog section on the *Honors Tutorial College*.

## French (Romance)

**111 Elementary French (4) (2H)**  
Beginning course of a 3-qr, 1st-yr sequence. Basic grammatical

concepts and patterns. Emphasis on development of reading, listening, comprehension, speaking, and writing skills. Basic text and workbook used. Lab required.

**112 Elementary French (4) (2H)**  
Prereq: 111. Continuation of 111. Basic text, workbook, and readings used. Lab required.

**113 Elementary French (4) (2H)**  
Prereq: 112. Continuation of 112. Basic text, workbook, and readings used. Lab required.

**211 Intermediate French (4) (2H)**  
Prereq: 113 or 2 or 3 yrs high school French. First course of a 3-qr intermediate level sequence. Intensive review of grammar. Additional readings with discussion in French. Supplemental cultural material. Lab required.

**212 Intermediate French (4) (2H)**  
Prereq: 211 or perm. Continuation of 211.

**213 Intermediate French (4) (2H)**  
Prereq: 212 or 4 yrs high school French. Reading and discussion of selected modern works. Completion of 213 fulfills foreign language requirement of the College of Arts and Sciences.

**298 Independent Study in French (1-2, max 6)**  
Prereq: 213 or perm of instructor. Reading and discussion of assigned materials (books, periodicals, films, tapes) on specific topics involving French language. Does not count toward major or minor. Does not satisfy language requirement.

**341 Advanced Conversation and Composition (4) (2H)**  
Prereq: 213 or perm. Conversation based on assigned topics. Writing of short compositions which are also discussed in class.

**342 Advanced Conversation and Composition (4) (2H)**  
Prereq: 341 or perm. Continuation of speaking with more emphasis on writing skills.

**343 Advanced Conversation and Composition (4) (2H)**  
Prereq: 342 or perm. Emphasis on writing.

**348 French Civilization and Culture (4) (2H)**  
Prereq: 213, or perm. (fall, winter) Social, political, and cultural history of France from Middle Ages to Revolution. Readings, discussions, class reports, and term papers.

**349 French Civilization and Culture (4) (2H)**  
Prereq: 213, or perm. (spring) Continuation of 348, covering 1799 to present. Problems of France in modern world.

**355 Introduction to French Literature (4) (2H)**  
Prereq: 213. Reading and discussion of major French literary works from Middle Ages through 18th century.

**356 Introduction to French Literature (4) (2H)**  
Prereq: 213. Extensive reading and discussion of major French literary works of 19th and 20th centuries.

**415 French Literature of the Renaissance (4)**  
Prereq: 355 and 356. Major 16th century writers.

**416 French Literature of the Renaissance (4)**  
Prereq: 355 and 356. Continuation of 415.

**418 17th Century French Literature (4)**  
Prereq: 355 and 356. Works by numerous authors, including at least some of the following: Descartes, Pascal, Mme de La Fayette, La Rochefoucauld, La Bruyere, La Fontaine, and Boileau.

**419 17th Century French Literature (4)**  
Prereq: 355 and 356. Major plays of Corneille, Racine, and Moliere.

**423 18th Century (4)**  
Prereq: 355 and 356. French literature and thought in Age of Enlightenment.

**424 18th Century (4)**  
Prereq: 355 and 356. Continuation of 423.

**425 Romanticism (4)**

Prereq: 355 and 356. Romanticism in drama, poetry, and fiction of first half of 19th century.

**426 Realism and Naturalism (4)**

Prereq: 355 and 356. Fiction and drama of second half of 19th century.

**427 French Poetry in the Second Half of the 19th Century (4)**

Prereq: 355 and 356. Poetry of Leconte de Lisle, Heredia, Baudelaire, Verlaine, Rimbaud, and Mallarmé.

**429 20th Century French Literature I (4)**

Prereq: 355 and 356. Works by various authors, including at least some of following: Anouilh, Apollinaire, Beckett, Camus, Gide, Giraudoux, Ionesco, Malraux, Mauriac, Proust, Robbe-Grillet, Sartre, Valéry.

**431 20th Century French Literature II (4)**

Prereq: 355 and 356. Works by various authors, including at least some of those listed in 429. During any 2-yr period, all or most required readings for 429 and 431 will differ.

**433 20th Century French Literature III (4)**

Prereq: 355 and 356. Study in depth of a genre, theme, work, or major figure of 20th century.

**435 Proseminar (1-4, max 12)**

Prereq: perm. Subject will vary. May be repeated when subject changes.

**437 Applied Phonetics (3)**

Prereq: perm. (fall) Advanced study of International Phonetic Alphabet and transcription practice in French.

**439 Modern French Usage (3)**

Prereq: 343 or perm. (winter) Finer points of grammar. Practice in composition and analysis of texts.

**441 Stylistics (3)**

Prereq: 343 or perm. (spring) Composition. *Explication de texte*. Translation of English into French. Study of French prosody.

**498 Independent Study in French (1-2, max 4)**

Prereq: 5 credits at 300 level or perm of dept chairman. Directed individual readings, discussion, and reports in language at advanced level. Does not count toward 400-level hrs required for major. Maximum of 2 credits may count toward minor.

## German (Germanic)

**111 Elementary German (4) (2H)**

Introduction to pronunciation and basic grammar. Development of comprehension and speaking skills. Lab required. Beginning course of a 3-qr 1st-yr sequence.

**112 Elementary German (4) (2H)**

Prereq: 111. Continuation of 111. Lab required.

**113 Elementary German (4) (2H)**

Prereq: 112. Continuation of 112. Continued development of skills of oral and written production and comprehension. Lab required.

**211 Intermediate German (4) (2H)**

Prereq: 113 or 2 or 3 yrs h s. German. Continued development of listening comprehension, reading, writing, and speaking skills. Grammar review. Lab required. First course of 3-qr intermediate level sequence.

**212 Intermediate German (4) (2H)**

Prereq: 211 or perm. Continuation of 211. Emphasis on discussion of modern texts. Continued development of listening comprehension and speaking and writing skills. Lab required.

**213 Intermediate German (4) (2H)**

Prereq: 212 or 4 yrs h s. German. Modern German texts are read and form basis for discussions and written assignments. Completion of 213 fulfills foreign language requirement of the College of Arts and Sciences.

**235 German Drama on Stage (2-4)**

Prereq: 211. (winter) Presentation of German drama on stage. Private coaching in pronunciation and inflection of German. Credit varies according to role of student. May be repeated for credit with perm.

**298 Independent Study in German (1-2, max 6)**

Prereq: 213 or perm of instructor. Reading and discussion of assigned materials (books, periodicals, films, tapes) on specific topics involving German language. Does not count toward major or minor. Does not satisfy language requirement.

**341 Advanced Conversation and Composition (4) (2H)**

Prereq: 213 or perm.

**342 Advanced Conversation and Composition (4) (2H)**

Prereq: 341 or perm.

**343 Advanced Conversation and Composition (4) (2H)**

Prereq: 342 or perm.

**348 German Culture and Civilization (4) (2H)**

Prereq: 213, or perm. (fall, winter) Historical, intellectual, and artistic aspects of German, Austrian, and Swiss culture from earliest times to present.

**349 German Culture and Civilization (4) (2H)**

Prereq: 213, or perm. (spring) Continuation of 348.

**355 Introduction to German Literature (4) (2H)**

Prereq: 213. Study of major literary works, with emphasis on 18th and 19th centuries.

**356 Introduction to German Literature (4) (2H)**

Prereq: 213. Study of major literary works of 20th century.

**425 19th Century German Literature (4)**

Prereq: 355 and 356.

**426 19th Century German Literature (4)**

Prereq: 355 and 356.

**427 19th Century German Literature (4)**

Prereq: 355 and 356.

**429 20th Century German Literature (4)**

Prereq: 355 and 356.

**430 20th Century German Literature (4)**

Prereq: 355 and 356.

**431 20th Century German Literature (4)**

Prereq: 355 and 356.

**433 German Lyric Poetry (4)**

Prereq: 355 and 356. Interpretative and critical study of German lyric poetry.

**435 Proseminar (1-4, max 12)**

Prereq: perm. Intensive analysis of major author, literary genre, or theme. When subject is changed, student may reenroll.

**437 Phonology (3)**

Prereq: perm. (fall) Problems in description and teaching of German sound system. Training in phonetic and phonemic transcription. Pronunciation drills. Contrastive analysis.

**439 Grammatical Structure (3)**

Prereq: 343 or perm. (winter) Selected problems in analysis and classroom presentation of German morphology and syntax.

**441 Stylistics (3)**

Prereq: 343 or perm. (spring) Advanced writing and stylistic analysis. Practice in a variety of nonfiction prose techniques.

**447 Readings in German Literature from the 12th through the 17th Centuries (4)**

Prereq: 355 and 356. Literature of Courtly Period, Renaissance, and Reformation and Baroque.

**448 Readings in German Literature from the 12th through the 17th Centuries (4)**

Prereq: 355 and 356. Continuation of 447.



**453 The Age of Goethe (4)**

Prereq: 355 and 356. Major works of Lessing, Schiller, and Goethe.

**454 The Age of Goethe (4)**

Prereq: 355 and 356. Continuation of 453. See 453 for description.

**455 The Age of Goethe (4)**

Prereq: 355 and 356. Continuation of 453 and 454. See 453 for description.

**498 Independent Study in German (1-2, max 4)**

Prereq: 8 credits at 300 level or perm of dept chairman. Directed individual readings, discussion, and reports in language at advanced level. Does not count toward 400-level hrs required for major. Maximum of 2 credits may count toward minor.

## Italian (Romance)

**111 Elementary Italian (4) (2H)**

(fall) Beginning course of 3-qr 1st-yr sequence.

**112 Elementary Italian (4) (2H)**

Prereq: 111. (winter) Continuation of 111.

**113 Elementary Italian (4) (2H)**

Prereq: 112. (spring) Continuation of 112.

**211 Intermediate Italian (4) (2H)**

Prereq: 113 or 2 or 3 yrs h.s. Italian. (fall) First course of 3-qr intermediate-level sequence.

**212 Intermediate Italian (4) (2H)**

Prereq: 211 or perm. (winter) Continuation of 211.

**213 Intermediate Italian (4) (2H)**

Prereq: 212 or 4 yrs h.s. Italian. (spring) Successful completion of 213 fulfills foreign language requirement of the College of Arts and Sciences.

**298 Independent Study in Italian (1-2, max 6)**

Prereq: 213 or perm of instructor. Reading and discussion of assigned materials (books, periodicals, films, tapes) on specific topics involving Italian language. Does not satisfy language requirement. Does not count toward minor.

**341 Advanced Conversation and Composition (4) (2H)**

Prereq: 213 or perm. (fall)

**342 Advanced Conversation and Composition (4) (2H)**

Prereq: 341 or perm.

**343 Advanced Conversation and Composition (4) (2H)**

Prereq: 342 or perm.

**348 Italian Civilization and Culture (4) (2H)**

Prereq: 213 or perm. (winter) Historical and cultural development of Italy from Middle Ages to Renaissance.

**349 Italian Civilization and Culture (4) (2H)**

Prereq: 213 or perm. (spring) Continuation of 348, covering period from Renaissance to present.

**355 Introduction to Italian Literature (4)**

Prereq: 213, or perm.

**356 Introduction to Italian Literature (4)**

Prereq: 213, or perm.

## Portuguese (Romance)

(Portuguese courses are offered only upon sufficient demand.)

**111 Elementary Portuguese (4) (2H)**

(fall) Beginning course of 3-qr 1st-yr sequence.

**112 Elementary Portuguese (4) (2H)**

Prereq: 111. (winter) Continuation of 111.

**113 Elementary Portuguese (4) (2H)**

Prereq: 112. (spring) Continuation of 112.

**211 Intermediate Portuguese (4) (2H)**

Prereq: 113 or 2 or 3 yrs h.s. Portuguese. (fall) First course of 3-qr intermediate-level sequence.

**212 Intermediate Portuguese (4) (2H)**

Prereq: 211 or perm. (winter) Continuation of 211.

**213 Intermediate Portuguese (4) (2H)**

Prereq: 212 or 4 yrs h.s. Portuguese. (spring) Successful completion of 213 fulfills language requirement of the College of Arts and Sciences.

## Russian (Slavic)

**111 Elementary Russian (4) (2H)**

(fall) Beginning course of 3-qr 1st-yr sequence.

**112 Elementary Russian (4) (2H)**

Prereq: 111. (winter) Continuation of 111.

**113 Elementary Russian (4) (2H)**

Prereq: 112. (spring) Continuation of 112.

**211 Intermediate Russian (4) (2H)**

Prereq: 113 or 2 or 3 yrs h.s. Russian. (fall) Continued language study. Review of grammar. First course of 3-qr intermediate-level sequence.

**212 Intermediate Russian (4) (2H)**

Prereq: 211 or perm. (winter) Continuation of 211. Extensive reading, writing, and oral practice.

**213 Intermediate Russian (4) (2H)**

Prereq: 212 or 4 yrs h.s. Russian. (spring) Accelerated reading, writing, and oral practice. Completion of 213 fulfills foreign language requirement of the College of Arts and Sciences.

**298 Independent Study in Russian (1-2, max 6)**

Prereq: 213 or perm of instructor. Reading and discussion of assigned materials (books, periodicals, films, tapes) on specific topics involving Russian language. Does not count toward major or minor. Does not satisfy language requirement.

**341 Advanced Conversation and Composition (4) (2H)**

Prereq: 213 or perm. (fall)

**342 Advanced Conversation and Composition (4) (2H)**

Prereq: 341 or perm. (winter)

**343 Advanced Conversation and Composition (4) (2H)**

Prereq: 342 or perm. (spring)

**348 The Cultural History of Russia (4) (2H)**

Prereq: 213 or perm. Cultural heritage of Russian people. Origin of Russian literature. Russian chronicles. Three cycles of the *bylina*. Russian ballads. Russian folklore. Readings and lectures in Russian.

**349 The Cultural History of Russia (4) (2H)**

Prereq: 213 or perm. Continuation of 348.

**355 Introduction to Russian Literature (4) (2H)**

Prereq: 213. Analysis of genres and literary movements.

**356 Introduction to Russian Literature (4) (2H)**

Prereq: 213. Continuation of 355.

**397 Introduction to the History of the Russian Language (3)**

Prereq: 213 or 4 yrs h.s. Russian. (spring) Russian phonology, morphology, and syntax from Common Slavic to present. East, West, and South Slavic languages.

**411 19th Century Russian Literature (4)**

Prereq: 355 and 356. Pushkin and Lermontov.

**412 19th Century Russian Literature (4)**

Prereq: 355 and 356. Gogol, Turgenev, and Dostoevsky.

**413 19th Century Russian Literature (4)**

Prereq: 355 and 356. Tolstoy and Chekhov.

**429 Russian Literature in the Soviet Era (4)**

Prereq: 355 and 356.

**430 Russian Literature in the Soviet Era (4)**

Prereq: 355 and 356. Continuation of 429.

**431 Russian Literature in the Soviet Era (4)**

Prereq: 355 and 356. Continuation of 429 and 430.

**435 Proseminar (1-4, max 12)**

Prereq: perm. Subject will vary. May be repeated when subject changes.

**437 Applied Phonetics (3)**

Prereq: perm. (fall)

**439 Structure of Modern Russian (3)**

Prereq: 343 or perm. (winter) Accurate linguistic description of entire structure of Russian.

**441 Stylistics (3)**

Prereq: 343 or perm. (spring) Advanced writing and stylistic analysis.

**498 Independent Study in Russian (1-2, max 4)**

Prereq: 8 credits at 300 level or perm of dept chairman. Directed individual readings, discussion, and reports in language at advanced level. Does not count toward 400-level hrs required for major. Maximum of 2 credits may count toward minor.

**Spanish (Romance)****111 Elementary Spanish (4) (2H)**

Development of comprehension, speaking, and reading skills. Basic grammar. Lab required. Beginning course of 3-qr 1st-yr sequence.

**112 Elementary Spanish (4) (2H)**

Prereq: 111. Continuation of 111.

**113 Elementary Spanish (4) (2H)**

Prereq: 112. Continuation of 112.

**211 Intermediate Spanish (4) (2H)**

Prereq: 113 or 2 or 3 yrs h.s. Spanish. Intensive review of grammar. Additional readings and discussion in Spanish. Supplemental cultural material. Lab required. First course of 3-qr intermediate-level sequence.

**212 Intermediate Spanish (4) (2H)**

Prereq: 211 or perm. Continued review. Additional literary readings with discussion in Spanish.

**213 Intermediate Spanish (4) (2H)**

Prereq: 212 or 4 yrs h.s. Spanish. Selected readings of 20th century Spanish dramatists, poets, novelists, and essayists with discussion in Spanish. Completion of 213 fulfills foreign language requirement of the College of Arts and Sciences.

**298 Independent Study in Spanish (1-2, max 6)**

Prereq: 213 or perm of instructor. Reading and discussion of assigned materials (books, periodicals, films, tapes) on specific topics involving Spanish language. Does not count toward major or minor. Does not satisfy language requirement.

**341 Advanced Conversation and Composition (4) (2H)**

Prereq: 213 or perm. Conversation based on assigned topics. Writings of short compositions which are also discussed in class.

**342 Advanced Conversation and Composition (4) (2H)**

Prereq: 341 or perm. Continuation of speaking with more emphasis on writing skills.

**343 Advanced Conversation and Composition (4) (2H)**

Prereq: 342 or perm. Emphasis on writing.

**348 Spanish Civilization and Culture (4) (2H)**

Prereq: 213 or perm. (fall, winter) Historical, social, political, and cultural readings about Spain.

**349 Spanish American Civilization and Culture (4) (2H)**

Prereq: 213 or perm. (spring) Lectures in Spanish on Indian civilizations, colonial period, 19th and 20th centuries.

**354 Introduction to Spanish Literature (4) (2H)**

Prereq: 213. Selected Spanish and Spanish American plays.

Historical developments and trends in Hispanic theater. Terminology. Readings, lectures, and discussion.

**355 Introduction to Spanish Literature (4) (2H)**

Prereq: 213. Selected Spanish and Spanish American novels and shorter fiction. Historical development and trends in Hispanic narrative form. Terminology. Readings, lectures, and discussion.

**356 Introduction to Spanish Literature (4) (2H)**

Prereq: 213. Selected Spanish and Spanish American poetry. Historical development and tendencies in Hispanic verse. Movements and terminology. Introduction to essay as art form. Readings, lectures, and discussion.

**425 19th Century Spanish Literature (1800-1850) (4)**

Prereq: 354, 355 and 356. Romanticism, costumbrismo, and other trends in drama, essay, and poetry.

**427 19th Century Spanish Literature (1850-1900) (4)**

Prereq: 354, 355 and 356. Emphasis on regionalism and naturalism in the novel.

**429 Generation of '98 (4)**

Prereq: 354, 355 and 356. Representative works by Azorin, Baroja, Machado, Unamuno, Valle-Inclan, Benavente, Ortega y Gasset, and other authors.

**432 20th Century Spanish Literature (4)**

Prereq: 354, 355 and 356. Study of poetry, drama, and novel in Spain since 1925. Works by various authors including at least some of following: Lorca, Salinas, Guillen, Aleixandre, Casona, Buero Vallejo, Sastre, Cela, Delibes, Hierro, Bousono, Martin-Santos, Benet.

**435 Proseminar (1-4, max 12)**

Prereq: perm. Subject will vary. May be repeated when subject changes.

**437 Applied Phonetics (3)**

Prereq: perm. (fall) Systematic description of segmental and prosodic elements of Spanish system, particularly as contrasted with English.

**439 Modern Spanish Usage (3)**

Prereq: 343 or perm. Syntactical and grammatical structure of modern Spanish.

**441 Stylistics (3)**

Prereq: 343 or perm. Analysis of literary styles and study of techniques used to acquire correct style in writing Spanish.

**443 Survey of Spanish American Literature (4)**Prereq: perm. Main trends of Spanish American literature from colonial period to *Modernismo*.**444 Survey of Spanish American Literature (4)**Prereq: perm. Continuation of 443. Main trends of Spanish American literature from *Modernismo* to contemporary period.**447 Themes from Spanish American Prose (4)**

Prereq: perm.

**448 Contemporary Spanish American Literature (4)**

Prereq: perm.

**453 Drama of the Golden Age (4)**

Prereq: perm. Works by Lope de Vega, Tirso de Molina, Juan Ruiz de Alarcón, Calderón, and related dramatists.

**455 Novel of the Golden Age (4)**Prereq: perm. Picaresque novel, Cervantes' *novelas ejemplares* and other trends in novel of 16th and 17th centuries.**458 Don Quijote de la Mancha (4)**Prereq: perm. Intensive study of Part One and Part Two of Spain's greatest novel. Biographical material concerning Miguel de Cervantes, author of the *Quijote*.**498 Independent Study in Spanish (1-2, max 4)**

Prereq: 8 credits at 300 level or perm of dept chairman. Directed individual readings, discussion, and reports in language at advanced level. Does not count toward 400-level hrs required for major. Maximum of 2 credits may count toward minor.

## Greek and Latin Languages

(Department of Classical Languages)

The Latin major requirement for the A.B. degree is a minimum of 39 hours above courses 111-112-113, with at least nine hours of 400-level courses consisting of CLNG 401, LAT 433, and other 400-level work in Latin.

A major in Greek is not offered, but Latin majors, especially those who are planning graduate work, are encouraged to take as much Greek as they can.

### Archaeology

#### 201 Introduction to Archaeology – Egypt (5) (2H)

(winter, 1982 and 1984) *H. Hultgren*. Aims, methods, and techniques; general types of archaeological work and excavation. Open to students who have had 203 and/or 352, as well as beginners.

#### 203 Introduction to Archaeology – Rome (5) (2H)

(winter, 1981 and 1983) *H. Hultgren*. Similar to 201, but with emphasis on Roman sites and antiquities. Open to students who have had 201 and/or 352, as well as to beginners.

#### 352 Archaeology of Greece (5)

Prereq: 201 or 203; or 18 hrs foreign language; or 12 hrs history or art history. (spring) *H. Hultgren*. Archaeology of Greece and Aegean Islands, with emphasis on Minoan and Mycenaean civilizations.

### Greek

#### 111 Beginning Greek (4) (2H)

*P. Murphy*. Grammar, vocabulary, and reading of ancient Attic Greek.

#### 112 Beginning Greek (4) (2H)

Prereq: 111. Continuation of 111. See 111 for description.

#### 113 Beginning Greek (4) (2H)

Prereq: 112. Continuation of 111-112. See 111 for description.

#### 211 Greek Prose and Poetry (3) (2H)

Prereq: 113. *H. Hultgren*. Review of language principles. Readings adapted to needs and interests.

#### 212 Greek Prose and Poetry (3) (2H)

Prereq: 211. Continuation of 211. See 211 for description.

#### 213 Greek Prose and Poetry (3) (2H)

Prereq: 212. Continuation of 211-212. See 211 for description. Passing 213 fulfills foreign language requirements of College of Arts and Sciences for A.B. degree.

#### 409 Advanced Greek Readings (2-4, max 18)

Prereq: 21 hrs. (on demand) Selections adapted to needs and interests.

### Latin

#### 111 Beginning Latin (4) (2H)

*H. Hultgren*. Grammar, vocabulary, and reading.

#### 112 Beginning Latin (4) (2H)

Prereq: 111. *H. Hultgren*. Continuation of 111. See 111 for description.

#### 113 Beginning Latin (4) (2H)

Prereq: 112. *H. Hultgren*. Continuation of 111-112. See 111 for description.

#### 211 Intermediate Latin (4) (2H)

Prereq: 113 or 2-3 yrs h.s. Latin. *P. Murphy*. Review of h.s. Latin with reading of easy prose.

#### 212 Intermediate Latin (4) (2H)

Prereq: 211. *P. Murphy*. Continuation of 211. Reading of Vergil.

#### 213 Intermediate Latin (4) (2H)

Prereq: 212. *P. Murphy*. Continuation of 211-212. See 212 for description. Passing 213 fulfills foreign language requirements of College of Arts and Sciences for A.B. degree.

#### 351 Latin Prose and Poetry (4) (2H)

Prereq: 213 or 4 yrs h.s. Latin, or 3 yrs h.s. Latin and perm. *H. Hultgren*. Review of essential Latin. Reading of Cicero's essays, a play of Plautus or Terence, Horace's Odes and Epodes.

#### 352 Latin Prose and Poetry (4) (2H)

Prereq: 213 or 4 yrs h.s. Latin or 3 yrs h.s. Latin and perm. Continuation of 351. See 351 for description.

#### 353 Latin Prose and Poetry (4) (2H)

Prereq: 213 or 4 yrs h.s. Latin or 3 yrs h.s. Latin and perm. Continuation of 351-352. See 351 for description.

#### 364 The Teaching of High School Latin (3)

Prereq: 213. (on demand) *H. Hultgren*. Content and methods of teaching h.s. Latin courses.

#### 411 Latin Literature of the Republic (3)

Prereq: 353. Selections from works of Plautus, Terence, Caesar, Cicero, Lucretius, Catullus, and Sallust.

#### 412 Latin Literature of the Republic (3)

Prereq: 353. Continuation of 411. See 411 for description.

#### 413 Latin Literature of the Republic (3)

Prereq: 353. Continuation of 411-412. See 411 for description.

#### 415 Latin Literature of the Early Empire (3)

Prereq: 353. Selections from works of Vergil, Horace, Livy, Ovid, Martial, Tacitus, Juvenal, and Pliny the Younger.

#### 416 Latin Literature of the Early Empire (3)

Prereq: 353. Continuation of 415. See 415 for description.

#### 417 Latin Literature of the Early Empire (3)

Prereq: 353. Continuation of 415-416. See 415 for description.

#### 419 Readings in Latin Literature (3)

Prereq: 353. Selections complement students' other readings in Latin literature.

#### 420 Readings in Latin Literature (3)

Prereq: 353. Continuation of 419. See 419 for description.

#### 421 Readings in Latin Literature (3)

Prereq: 353. Continuation of 419-420. See 419 for description.

#### 433 Advanced Latin Syntax (3)

Prereq: 353. (on demand) *P. Murphy*. Writing of Latin prose.

#### 440 Special Work in Latin (1-6, max 12)

Prereq: 353. (on demand) Specialized work in selected phases of classical study.

### Classical Languages in English

The lectures and readings for these courses are in English, and the courses may count as part of the humanities area requirement of the College of Arts and Sciences. With the exception of course 401, which is required for a major in Latin, these courses cannot count toward a major in a foreign language or as part of the foreign language requirement of the College of Arts and Sciences.

#### 127 Greek and Latin Words in English (4) (2H)

(winter, spring) *P. Murphy*. General and technical vocabulary derived from Greek and Latin. No knowledge of Greek or Latin required. No credit toward meeting foreign language requirement.

#### 234 Classical Mythology (4) (2H)

Introduction to classical mythology; readings and discussions of myths and their interpretations. No knowledge of Greek or Latin required. No credit toward meeting foreign language requirement.

#### 235 Classical Literature in Translation (4) (2H)

Reading of Greek and Latin literature in English translation. May

be counted as part of requirements for humanities of College of Arts and Sciences. May not be counted toward a major in Latin. No knowledge of Greek or Latin required. No credit toward meeting foreign language requirement.

**236 Classical Literature in Translation (4) (2H)**  
Continuation of 235.

**237 Classical Literature in Translation (4) (2H)**  
Continuation of 236.

### 401 The Life of the Romans (3)

Prereq: 12 hrs or 12 hrs history and antiquities. (on demand) *H. Hultgren*. Family, house, transportation, public amusements. Illustrations from archaeological evidence. No knowledge of Latin required. No credit toward meeting foreign language requirement.

## FRENCH

See Foreign Languages and Literatures.

## GEOGRAPHY

The requirements of geography majors studying for the A.B. or B.S. degree are 50 quarter hours in approved geography courses including 101, 121, 130, 312, 360, 470, 477, and at least one course from each of the following groups:

a) 230, 330, 331, 332, 420, 430; b) 201, 321, 325, 327, 422, 429. Completion of the above requirements automatically completes the College of Arts and Sciences requirement of nine hours in the major at the junior-senior level.

Majors are not permitted to take geography and required courses on a pass-fail basis.

Students wishing to pursue the B.S. degree must obtain a strong background in the natural sciences. The selection of specific courses will be dependent on the student's interest and the advice of the faculty.

A minor in geography will consist of a minimum of 28 hours including GEOG 101, 121, 130, and at least two other courses at the 200 level or above.

**101 Elements of Physical Geography (5) (2N)**  
Systematic survey of temperature, precipitation, atmospheric and oceanic circulation, and global systems of climate, soils, natural vegetation, and landforms. 4 lec, one 2-hr lab.

**121 Elements of Cultural Geography (4) (2S)**  
Examination of spatial dimensions of culture, emphasizing patterns of variation of selected cultural elements — language, religion, population, settlement, etc. — from spatial perspective and within particular spatial frameworks.

**130 Economic Geography (4) (2S)**  
Theoretical and empirical studies of locations of primary, secondary, and tertiary economic activities.

**140 World Regional Geography — Eurasia (4)**  
(fall) Survey of selected geographical elements — physical, cultural, and/or economic — which influence land utilization, historical-cultural development, and political modernization of Europe and Asia.

**141 World Regional Geography — Africa and Oceania (4)**  
(spring) Survey of selected geographical elements — physical, cultural, and/or economic — which influence land utilization, historical-cultural development, and political modernization of Africa, Australia, New Zealand, and Pacific Islands.

**142 World Regional Geography — Western Hemisphere (4)**  
(winter) Survey of selected geographical elements — physical

cultural, and/or economic — which influence land utilization, historical-cultural development, and political modernization of North and South America.

**201 Environment and Man (4) (2A)**  
(fall, spring) Geographic survey of environmental changes caused by man's activities. Focus on problems of pollution of air, water, and biosphere and man's interaction with plant and animal communities.

**230 Introduction to Urban Geography (4) (2S)**  
Study of internal patterns of urban areas of North America.

**240 Geography of Eastern United States (3)**  
Systematic and regional survey of eastern United States. Emphasis on cultural and economic development as conditioned by ethnic and environmental effects.

**241 Geography of Western United States (3)**  
Systematic and regional survey of western United States. Emphasis on cultural and economic development as conditioned by ethnic and environmental effects.

**242 Geography of Ohio (3)**  
*H. Wilhelm*. Detailed regional study of physical background, settlement, and economic development.

**260 Map Reading and Interpretation (4) (2A)**  
(fall) *H. Bloemer*. Uses and abuses of maps. Interpretation of topographic and thematic maps. Emphasis on map analysis. 2 lec, one 2-hr lab.

**301 Advanced Physical Geography (4)**  
Prereq: 101, 311 or 312. (spring) *R. Isaac*. Application of physical geographic principles to specific research problems.

**311 Elements of Meteorology (5)**  
Prereq: 101. (fall, spring) *R. Isaac*. General survey of physical principles of weather. 4 lec, one 2-hr lab.

**312 Climate (5)**  
Prereq: 101 or 311. (winter) *R. Isaac*. Exchanges of energy and moisture and their significance in man's utilization of earth's surface. 4 lec, one 2-hr lab.

**321 Themes in Cultural Geography (4)**  
Prereq: 121 or perm. Systematic study of creation of human habitat. Exploitation of plants and animals, domestication, recent research. City origins and manifestations in different civilizations. Perceptions and ideas concerning environment.

**325 Principles of Political Geography (4)**  
Prereq: 121 or perm. (winter) *B. Walter*. Systematic examination of basic approaches, topics, and spatial concepts in political geography, with case studies. Emphasis at nation-state level.

**327 Resource Management (4)**  
Prereq: 201 or perm. (winter) Themes in American environmental history, contemporary environmentalism, methods of resource assessment and management, and selected case studies in managing renewable resources.

**330 Transportation Geography (4)**  
Prereq: 130 or perm. *H. Bloemer*. Transportation systems in relation to economic structure of regions and as a basis for inter-regional linkages.

**331 Geography of Agricultural Activity (4)**  
Prereq: 130 or perm. (fall) Agriculture examined from 3 viewpoints: evolution of agricultural systems, ecological analysis of traditional and modern agriculture, food and agricultural development.

**332 Geography of Manufacturing (4)**  
Prereq: 130 or perm. *N. Ban*. Industrial location theory and practice.

**340 Geography of Western Europe (4)**  
*H. Wilhelm*. Physical, cultural, and economic geography of western Europe.

**342 Geography of the Soviet Union (4)**  
Physical, cultural, and economic geography of the Soviet Union.

### 343 Geography of Appalachia (4)

(winter) *H. Wilhelm*. Topical and regional survey of Appalachia with emphasis on settlement and rural and urban land use. National role of Appalachia assessed especially in regard to coal, conservation, reclamation, and recreation.

### 345 Contemporary Southeast Asia (4) (2T)

(fall) Survey of population, food production, natural resource exploitation, energy, physical base and regional concept in Southeast Asia.

### 350 Geography of Northern Africa (4)

*F. Bernard, B. Walter*. Physical and cultural-historical geography and problems of economic development of northern Africa.

### 351 Geography of Sub-Saharan Africa I – Systematic (4) (2T)

Prereq: 121 or perm. (fall) *F. Bernard, B. Walter*. Systematic examination of 4 selected themes relevant to modern geography of Africa. Emphasis on problems of development.

### 352 Geography of Sub-Saharan Africa II – Regional (4)

Prereq: 121 or perm. (winter) *F. Bernard, B. Walter*. Regional survey of one of the major areas of tropical Africa. A. East, B. West, C. Equatorial, D. Central and South.

### 355 Geography of South America (4) (2T)

Prereq: 101, 121, or perm. (spring) *L. Williams*. Regional survey of South America with emphasis on problems of social and economic development within Andean countries.

### 356 Geography of Middle America (4) (2T)

Prereq: 101, 121, or perm. (winter) *L. Williams*. Regional survey of Mexico, Central America, and West Indies, with emphasis on cultural history of region and current development problems.

### 360 Cartography and Graphics (4)

Prereq: perm. (fall) *H. Bloemer*. Introduction to basic design principles of esthetically pleasing maps, emphasizing legibility and readability from map user's viewpoint. Map construction ranges from simple map compilation to multicolor composition and scale reduction.

### 361 Statistical Cartography (5)

Prereq: perm. (winter) *H. Bloemer*. Cartographic techniques of representing quantitative data on maps.

### 365 Air-Photo Interpretation (4)

Prereq: perm. *H. Bloemer*. Principles and techniques used in air-photo interpretation for geographers, geologists, military, community planners, and engineers.

### 380 Remote Sensing (5)

Prereq: 365; GEOL 407 or perm. (spring) Synoptic analysis in both visual and digital form of spatial variations dealing with botanical, geological, and geographic phenomena.

### 420 Land Use Planning (4)

Prereq: 130, 230, or perm. (winter) *J. Cobban*. Survey of land use planning in United States. Zoning, subdivision controls and modifications, rural land use, open space, state land use plans. Case studies from U.S. and Europe.

### 422 Population Geography (4)

Prereq: 101, 121 or perm. (fall) *L. Williams*. Systematic survey of world population problems including distribution, composition, fertility, mortality, density, age-sex structure, and impact of these on world population growth and resources.

### 429 Settlement Geography (4)

(spring) *H. Wilhelm*. Patterns and forms of rural settlement in terms of environmental, functional, and traditional effects.

### 430 Advanced Urban Geography (4)

(spring) *J. Cobban*. Evolution of urban planning in the United States during the nineteenth and twentieth centuries. Housing, parks, ideal communities, intellectual attitudes, zoning and subdivision case law, federal intervention, present programs.

### 460 Advanced Cartography (5)

Prereq: 360, 361 or perm. (spring) *H. Bloemer*. Computer-aided cartography for quantitative data, culminating in application of cal-comp plotter.

### 470 Development of Geographic Thought (4)

Prereq: geography major or perm. (spring) *B. Walter, J. Cobban*. Philosophical examination of evolution of geography as an academic discipline; historical theme covers major traditions, ideas, concepts, trends, controversies, and prominent geographers.

### 475J Research Methods in Geography (4) (1J)

Prereq: perm. *N. Bain, F. Bernard*. Research materials, methods of investigation and presentation of geographic data.

### 476 Field Methods (5-9)

Prereq: perm. (summer) Introduction to geographic field methods and techniques in rural and/or urban areas, involving field mapping and recording, spatial sampling, interviewing, coding and visual recording, field analysis, and reporting and summarizing.

### 477 Quantitative Methods (4)

Prereq: perm. *R. Isaac*. Systematic survey of quantitative techniques employed by geographers.

### 485 Internship (max 15)

Prereq: upper division geography major. (fall, winter, spring, summer) Provides qualifying students credit for work-study experience in cartography, remote sensing, land use planning, resource management and other fields of applied geography. Supervised by geography faculty and evaluated by on-the-job supervisor. Lengthy report culminates experience.

### 490 Geographic Studies (1-5, max 10)

Prereq: perm. *N. Bain* (B, I), *F. Bernard* (G), *H. Bloemer* (A), *R. Isaac* (C, D), *B. Walter* (E), *H. Wilhelm* (H), *L. Williams* (I), *Staff* (D, F, J). Supervised studies in fundamentals of geographic research. A. Cartography, B. Economics, C. Meteorology and Climatology, D. Physical, E. Political, F. Regional, G. Resource Management and Conservation, H. Settlement, I. Urban, J. Field Problems.

## GEOLOGY

Required courses for the B.S. degree in minimum preparation for a professional career in geology are 101, 256, 314, 315, 320, 330, 340, 350, 360, 362, 387, and at least 3 courses from 386, or the 400 level. In addition, the following extra-departmental courses are required: CHEM 141, 142, and 143, physics through 203 or 253, and mathematics through 263B.

The major requirement for the A.B. degree includes the following: 101, 211, 256, 310, 330, 340, 350, 360, 362, and at least 2 courses at the 400 level. Extradepartmental requirements include CHEM 121 and 122, PHYS 201, and MATH 116. Students entering the A.B. program should consult with the departmental undergraduate advisor regarding appropriate minors to be combined with the A.B. degree.

The Geology Department also offers special professional programs in the fields of water resources and environmental geology. See special curricula in the College of Arts and Sciences.

A minor in geology may be obtained by completing one of the following course sequences:

Surficial/Environmental: requires 101, 256, 310, 330, 432, 438, 481

Solid Earth/Geophysics: requires 101, 256, 310, 350, 360, 362, 485

Water Resources: requires 101, 256, 310, 330, 350, 480, 481

Geobiology: requires 101, 256, 310, 340, 350, 443, 446

Geochemistry: requires 101, 256, 314, 315, 320, 413, 420.

**101 Introduction to Geology (5) (2N)**

Nature and distribution of earth materials and their utilization as natural resources: discussion of earth structure, earthquakes, mountain building, and continental drift; development of landscapes. 4 lec, 2 lab. Not open to students who have had 283.

**201 Man and the Physical Environment (4) (2A)**

Prereq: soph rank. Survey of geological aspects of environmental crisis. Focus on major environmental processes, immediate and extended influence of man, and prospects for future of physical environment. Presupposes no background in the sciences. 4 lec, field trips.

**211 Introductory Oceanography (4) (2N)**

Prereq: soph rank. Survey of physical, chemical, biological, and geological aspects of oceanography. 4 lec.

**256 Historical Geology (4)**

Prereq: 101. (winter, spring) *R. Mapes*. Earth and life history emphasizing geologic development, stratigraphy, and fossil record of North America. 3 lec, 2 lab.

**270 World Mineral Resources (3) (2A)**

Prereq: soph rank. Major deposits of metal, nonmetallic, and fuel resources which form backbone of modern industry. Economics and basic geologic controls of mineral production are reviewed. 3 lec with demonstrations. Not open to geology majors.

**283 Geology for Engineers (5)**

(fall) *S. Fisher*. Geologic principles applied to engineering projects and materials. 3 lec, 4 lab. Not open to students who have had 101.

**291 Selected Topics in Geology (3)**

Prereq: soph rank. 5-wk minicourses developed around specific topics in geology. **A. Earth Materials.** Characteristics of minerals and sedimentary, igneous, and metamorphic rocks. Not open to those who have had 101. **(2N) B. Glaciers and Glaciation.** Behavior of glaciers and effects of glaciation; causes of glaciation and prospects for future. **(2N) C. Geologic Development of North America.** Continental growth; character of marine invasions of North America; continental drift and mountain building. **(2N) D. Volcanoes and Earthquakes.** Origin of volcanic activity and earthquakes; characteristics of volcanic eruptions and features produced, effects of volcanoes and earthquakes on man; prediction of earthquakes and volcanic eruptions. **(2N) E. Mineral Resources.** Types and origins of mineral resources; energy resources and effect on future society; current problems, energy shortages. **(2A) F. Fossils and Evolution.** Origin and development of life through geologic time. **(2N) G. Soils and Weathering.** Weathering of rocks and genetic relationship to major soil types. **(2N) I. Water and Pollution.** Study of hydrological cycle, occurrence and flow of surface water and groundwater, problems of water pollution. **(2A) J. Continental Drift.** Nontechnical analysis of revolution in the earth sciences leading to continental drift and plate tectonics. **(2N)**

**310 Rocks and Minerals (5)**

Prereq 101 (winter) *G. Heien*. Principles of crystallography, descriptive, and determinative mineralogy, and study of igneous, metamorphic, and sedimentary rocks designed for students in earth science education, geology special curriculum programs, geology minors, and related science majors. Not open to B.S. geology majors. 3 lec, 4 lab.

**314 Crystallography (3)**

Prereq: CHEM 141 (fall) *G. Heien*. Elements of crystallography and introduction to crystal chemistry. 1 lec, 4 lab.

**315 Mineralogy (5)**

Prereq 314, CHEM 142 (winter) *G. Heien*. Descriptive and determinative mineralogy using physical and chemical properties. 3 lec, 4 lab.

**320 Igneous and Metamorphic Petrology (4)**

Prereq 315 (spring) *G. Heien*. Silicate crystal chemistry and phase equilibria. Origin of igneous and metamorphic rocks. Hand specimen identification. 3 lec, 2 lab.

**330 Principles of Geomorphology (5)**

Prereq: 101. (winter) *G. Smith*. Basic concepts of origin and development of landforms. Laboratory study of topographic maps and aerial photographs. 4 lec, 2 lab.

**340 Principles of Paleontology (5)**

Prereq: 256. (fall) *R. Mapes*. Invertebrate fossils emphasizing their theory of study, morphology, classification, and biologic relationships. 3 lec, 4 lab, field work.

**350 Stratigraphy-Sedimentology (4)**

Prereq: 315, 256. (spring) *R. Kreisa*. Introduction to principles and processes relating to origin of stratified rocks, and conventions of their classification and description. Field methods and field trips with emphasis on depositional environments.

**360 Structural Geology (4)**

Prereq: 101. (fall) *D. Nance*. Principles of rock deformation and interpretation of folding and faulting and related topics. Field-oriented structural problems, structural maps, and use of stereographic projections. Can be taken for graduate credit only by students in hydrogeology and geophysics options. 3 lec, 2 lab, field work.

**362 Geodynamics: The Earth's Interior (4)**

Prereq: 101, PHYS 201 or perm. (winter) *A. Kalra, D. Nance*. Structure of earth's interior and plate tectonics. Solid earth geophysics; gravity, magnetism, heat flow, velocity structure, and seismicity. 4 lec.

**386 Geologic Field Methods (4)**

Prereq: perm. Use of hand level, Brunton pocket transit, plane table and telescopic alidade, altimeter, and aerial photographs in mapping. 1 lec, 6 lab.

**387 Summer Field Geology (9)**

Prereq: 320, 350, 360, or perm. (7 wks, including travel time, and 1 wk report preparation, summer) *Staff*. Geologic mapping in deformed sedimentary, igneous, and metamorphic terranes. Written field report will be required. Course conducted in central Nevada.

**406 Geology of Ohio (4)**

Prereq: 256, or perm. Physiography, stratigraphy, and economic geology of Ohio. 4 lec, field trips.

**407 Topographic Map and Aerial Photo Interpretation (4)**

Prereq: 330, 360, or perm. (winter) *G. Smith*. Principles of use of topographic maps and aerial photographs for study and interpretation of geologic and geomorphic features. 2 lec, 4 lab.

**413 Optical and X-ray Mineralogy (5)**

Prereq: 320, PHYS 202. (fall) *G. Heien*. Optical characteristics of minerals in polarized light; identification of minerals with petrographic microscope. Theory of and identification of minerals by x-ray diffraction. 3 lec, 4 lab.

**420 General Petrography (5)**

Prereq: 413. (winter) *R. Kreisa, D. Nance*. Petrogenesis of sedimentary, igneous, and metamorphic rocks and their description and classification in thin section.

**426 Principles of Geochemistry (4)**

Prereq: 320, CHEM 142. (spring) *G. Heien*. Low temperature solution geochemistry, and equilibrium (including sea water); Eh-pH relationships, applications of thermodynamics to geologic systems; introduction to isotope geochemistry. 4 lec.

**431 Regional Geomorphology of North America (4)**

Prereq: 330, 256 recom. (spring) *G. Smith*. General consideration of nature and origin of landforms of North America, emphasizing regional approach to study of landforms. 4 lec.

**432 Origin and Classification of Soils (4)**

Prereq: 330 or perm. (spring) *G. Smith*. Consideration of concept of soil and factors of soil formation, introduction to soil morphology and systems of soil classification, discussion of major soil groups of the world and soils of Ohio. 3 lec, 2 lab, field work.

**438 Glacial Geology (4)**

Prereq: 330 or perm. (fall) *G. Smith*. Formation and behavior of glaciers, past and present; consideration of glacial processes; and causes and implications of ice ages. 3 lec, 2 lab, field trips.

**443 Advanced Invertebrate Paleontology (5)**

Prereq: 340. (winter) *R. Mapes*. Evolutionary trends, geologic history, selected index genera and faunas, and modern methods in study of invertebrate fossils. 3 lec, 4 lab, field work.

**446 Principles of Micropaleontology (4)**

Prereq: 256, 350. (fall) *T. Worsley*. Biology, morphology, taxonomic characteristics, and uses of microscopic fossils. 2 lec, 4 lab.

**454 Marine Geology (4)**

Prereq: 101, 211. (winter) *T. Worsley*. Basic sedimentological processes and sedimentary facies in marine environments. 3 lec, 2 lab.

**455 Precambrian Geology (4)**

Prereq: perm. Precambrian stratigraphy and igneous intrusions of North America and major problems involved. 3 lec, 2 lab.

**461 Advanced Structural Geology (4)**

Prereq: 360, PHYS 201 recom. (winter) *D. Nance*. Stress and strain; their application and derivation in natural structures. Regional structural associations and geometric analysis. 3 lec, 2 lab, field work.

**464 Regional Tectonics (4)**

Prereq: 360, 362 or perm. (spring) *D. Nance*. Global tectonics and structure of continental cratons and margins, mid-ocean ridges, island arcs, and major orogenic belts. 4 lec.

**470 Economic Geology – Metals (4)**

Prereq: 320. Principles of metallic mineral deposition and survey of major ore deposits of the world. 3 lec, 2 lab.

**471 Ore Deposits (4)**

Prereq: 470. Texture, paragenesis, and origin of metallic ores in polished sections. 3 lec, 2 lab.

**473 Economic Geology – Nonmetals (4)**

Prereq: 320. Principles of nonmetallic mineral deposition and survey of nonmetallic and coal deposits of the world. 3 lec, 2 lab.

**475 Petroleum Geology (4)**

Prereq: 360. (fall) *S. Fisher*. Origin, migration, and accumulation of petroleum and survey of major oil basins of the world. 3 lec, 2 lab.

**476 Subsurface Methods (4)**

Prereq: perm. (winter) *M. Ahmad*. Resume of drilling, sampling, and logging by electric, radioactivity, temperature, neutron methods as applied to petroleum exploration, water, and engineering projects. 3 lec, 2 lab.

**480 Hydrogeology I (4)**

Prereq: perm. (fall) *M. Ahmad*. Principles governing occurrence, movement, and recovery of water in soil and aquifers. Hydrologic cycle, water budget, hydrology of agriculture, watershed studies, water chemistry, and pollution. 3 lec, 2 lab.

**481 Hydrogeology II (4)**

Prereq: perm. (winter) *M. Ahmad*. Steady and unsteady flow to a well, analysis of pumping test data, water well design, well development, interference of wells, design of well fields. 3 lec, 2 lab.

**482 Theory of Groundwater Motion (4)**

Prereq: 481. (spring) *M. Ahmad*. Basic principles and fundamental equations; D.E. of groundwater motion, solution of boundary value problems for different types of aquifer. Analytical and numerical methods in subsurface hydrology with emphasis on finite difference method; digital model. 4 lec.

**483 Field Hydrology (6)**

Prereq: water resources background. (summer) *M. Ahmad*. Field training in techniques of hydrology and water resources evaluation. 3 wks.

**485 Exploration Geophysics (4)**

Prereq: 362. (fall) *A. Kalra*. Introductory course in geophysical exploration methods as practiced in petroleum industry. Emphasis on seismic methods especially CDP reflection; gravity and magnetic methods also covered. 3 lec, 2 lab.

**488 Geologic Field Reconnaissance (2 or 3)**

Prereq: perm. (winter) Spring vacation period geologic field trips to selected areas in eastern and central United States with pertinent conferences, readings, and reports.

**490 Seminar in Geology (1-2)**

Prereq: perm. Several seminars on specific topics in geology will be offered yearly. It is recommended that all majors participate in at least 1 seminar.

**491 Geologic Studies (1-6, max 12)**

Prereq: perm. *Staff*. Individual or small group independent study arranged with faculty members.

## GERMAN

See Foreign Languages and Literatures.

## GOVERNMENT

See Political Science.

## GREEK

See Foreign Languages and Literatures.

## HAUSA

See Foreign Languages and Literatures.

## HEALTH, PHYSICAL EDUCATION AND RECREATION

### Physical Education Activity Courses

These courses are for students wishing to gain competency in an activity. Courses are offered on a credit/fail basis.

**100A Archery (1)**

**100B Badminton (1)**

**100C Basketball (1)**

**100D Yoga (1)**

**100E Boating (1)**

**100F Bowling (1)**

**100G Conditioning and Weight Training (1)**

**100H Crosseball (1)**

**100I Curling (1)**

**100L Golf (1)**

**100M Intermediate Golf (1)**



- 100N Gymnastics (1)
- 100O Handball (1)
- 100P Judo (1)
- 100Q Karate (1)
- 100R Life Saving (1)
- 100T Skating (1)
- 100U Figure Skating (1)
- 100V Advanced Figure Skating (1)
- 100W Squash (1)
- 100X Swimming (1)
- 100Y Intermediate Swimming (1)
- 100Z Tennis (1)
- 100.1 Intermediate Tennis (1)
- 100.2 Volleyball (1)
- 100.4 Scuba (1)
- 100.5 Water Polo (1)
- 100.6 Modern Dance (1)
- 100.7 Ice Hockey Fundamentals (1)
- 100.8 Lacrosse (1)
- 100.9 Softball (1)
- 101A Intermediate Judo (1)
- 101B Intermediate Karate (1)
- 101C Advanced Tennis (1)
- 101E Cycling (1)
- 101F Paddleball (1)
- 101F Advanced Swimming (1)
- 101G Intermediate Handball (1)
- 101G Beginning Diving (1)
- 101H Intermediate Fencing (1)
- 101I Orienteering (1)
- 101K Team Handball (1)
- 101L Advanced Orienteering (1)
- 101L Intermediate Paddleball (1)
- 101M Skiing (1)
- 101N Beginning Water Skiing (1)
- 101O Advanced Water Skiing (1)
- 101P Intermediate Volleyball (1)
- 1008 Belly Dancing (1)
- 1009 Tai Chi (1)
- 1012 Co Ed Softball (1)
- 1013 Competitive Water Skiing (1)
- 1014 Survival I (1)
- 1015 Survival II (1)
- 1016 Intermediate Yoga (1)
- 1017 Intermediate Modern Dance (1)
- 1018 Field Sports I (1)
- 1019 Intermediate Belly Dancing (1)
- 1020 Whitewater Rafting (1)
- 1021 Adaptive Physical Education (1)
- 1022 Ice Dancing (1)
- 1023 Intermediate Snow Skiing (1)
- 1024 Hunting (1)
- 1025 Aerobic Conditioning (1)

- 1026 Trapshooting (1)
- 1027 Rapelling (1)
- 1028 Technical Climbing (1)
- 1029 Advanced Survival (1)
- 1030 Cross Country Skiing (1)
- 1031 Backpacking (1)
- 1032 Canoeing (1)
- 1033 Kayaking (1)
- 1034 Ropes (1)
- 1035 Rescue Techniques (1)
- 1036 Primitive Construction (1)
- 1037 Power Skating (1)
- 1038 Intermediate Skating (1)
- 1041 Jogging (1)

## Professional Preparation Courses

These courses are primarily for students wishing to pursue the B.S. in health, physical education or recreation. Majors are not permitted to take these courses pass/fail.

### 103 Swimming I (2)

Basic swimming skills for nonswimmers and beginners.

### 104 Swimming II (2)

Prereq: 103 or students with deep-water swimming skills. Instruction in basic strokes and related aquatic skills at intermediate and advanced level.

### 105 Conditioning for Activity and Organic Efficiency (2)

Prereq: physical education major. The purpose of the course is to increase the fitness level and knowledge competency of students majoring in physical education.

### 106 Introduction to Human Movement (2)

Prereq: physical education major. Introduces the student to the discipline of human movement and to the profession of teaching within the discipline. The students begin to develop movement analysis techniques, and learn the fundamental of self and other analysis in movement.

### 107 Modern Dance I (2)

Prereq: physical education major or minor or perm. Basic principles of dance technique. Movement progressions involving relationships of time, space, and dynamics.

### 108 Modern Dance II (2)

Prereq: 107 or equiv. Complex movement progressions, and experimentation in composition.

### 109 Synchronized Swimming (2)

Prereq: HPER 104 or equiv. Focuses on the basic principles of that course. Development of simple stunts, sculling and modified strokes; experimentation in group and individual composition.

### 115 Rhythmics (2)

Prereq: physical education major or minor or perm. Practical approach to rhythm fundamentals through various dance forms.

### 116 Social Forms of Dance (2)

Prereq: 115 or perm. Intermediate skills in ballroom, folk, round, mixers, couple, and contra dance.

### 117 Folk and Square Dance (2)

Prereq: physical education major. The purpose of this course is to introduce folk and square dance skills, and to allow students majoring in physical education to develop a competency in this area of dance.

### 120 Introduction to Therapeutic Recreation Services (2)

Factors presented will serve as foundation for career or employ-

ment in therapeutic services in both public and private settings for disabled, delinquent, and disadvantaged.

### **134 Introductory Field Experience in Physical Education (2)**

Designed to assist in career decisions. Seminar component prepares for field experience and practicum component aids in career decision-making.

#### **141A Archery (1)**

Prereq: physical education major or perm. The purpose of this course is to increase the archery skill and knowledge competency of students majoring in physical education.

#### **141B Golf (1)**

Prereq: physical education major or perm. The purpose of this course is to increase the golf skill and knowledge competency of students majoring in physical education.

### **202 Personal and Community Health (4) (2S)**

Practices and appreciation of means whereby health of individual and group may be maintained.

### **204 Drugs, Alcohol and Tobacco (3)**

Prereq: 202. In-depth study of contemporary issues — drugs, alcohol, and tobacco for prospective teacher.

### **212 Introduction to Coaching (3)**

Prereq: perm. Introduction to high school interscholastic athletics including history, structures, job opportunity, and contemporary programs.

### **215 Practicum in Athletics (2)**

Prereq: 212 or perm. Supervised field experience designed to involve student in coaching/administrative setting.

### **218 Life Saving and Water Safety (2)**

Prereq: 104 or equiv or perm. Principles and practices of life saving for American Red Cross certification.

### **220 Water Safety for Instructors (2)**

Prereq: Current Red Cross Life Saving Certificate. For those who hold valid American Red Cross Life Saving Certificate. Includes analysis of swimming, life saving techniques, and teaching practices.

#### **221A Tennis (1)**

Prereq: physical education major or perm. The purpose of this course is to increase the tennis skill and knowledge competency of students majoring in physical education.

#### **221B Badminton (1)**

Prereq: physical education major or perm. The purpose of this course is to increase the badminton skill and knowledge competency of students majoring in physical education.

### **222 Tumbling and Modern Gymnastics (2)**

Prereq: physical education major or minor or perm. Stunts, tumbling, and modern gymnastics.

### **223 Track and Field (2)**

Prereq: physical education major or minor or perm. Track and field activities suitable for girls and women.

#### **224A Wrestling (1)**

Prereq: physical education major or perm. The purpose of this course is to familiarize the physical education major with the skills and knowledge necessary for the successful teaching of wrestling. Adding this course as an elective to the physical education curriculum will widen their scope and better prepare physical educators in the teaching field.

#### **224B Racquetball (1)**

Prereq: physical education major or perm. The purpose of this course is to increase the racquetball skill and knowledge competency of students majoring in physical education.

### **225 Artistic Gymnastics (2)**

Prereq: 222 or perm. Floor exercise, balance beam, vaulting, and uneven parallel bars.

### **227 First Aid (3)**

Principles and practices of American Red Cross first aid. Standard certificate is granted if requirements are met.

### **228 Cardiopulmonary Resuscitation (1)**

Emergency first aid for respiratory failure and cardiac arrest.

### **234 Clinical and Field-based Experiences in Physical Education (1-4)**

Prereq: soph rank; 134, 273 or 274, or one theory and practice course. Supervised practice in organizing, managing and teaching physical education activities to public-school-age children in public school and clinical settings. May be repeated in excess of 4 hrs credit with approval.

### **236 Field Experience in Recreation (1-3)**

Prereq: soph rank and 250. Designed to provide sophomore recreation student with an opportunity to acquire supervised experiences in skills and techniques involved in differing areas of recreation.

#### **240 Taxidermy I (2)**

Prereq: soph rank. Study and practice of methods used to produce specimens that are exact replicas of living animals. Emphasis on birds.

#### **241 Taxidermy II (2)**

Prereq: 240. Continuation of 240, with major emphasis on game animals and fish.

### **250 Recreation Leadership (3)**

Prereq: recreation major and/or minor or perm. Lectures and discussions concerning value of recreation, leadership techniques, and selection of activities.

### **251 Art and Nature Crafts for Recreational Programs (3)**

Prereq: recreation major/minor or perm. Organization of art and nature crafts program and actual experiences in use of various craft materials with a particular emphasis on nature crafts.

#### **260A Flag Football (1)**

Prereq: physical education major or perm. Increase the flag football competency of students majoring in physical education.

#### **260B Team Handball (1)**

Prereq: physical education major or perm. Increase team handball competency of students majoring in physical education.

#### **262A Field Hockey (1)**

Prereq: physical education major or perm. Focuses on producing performance competent in skills, with knowledge of the rules of the activities involved and with the ability to apply strategies in games. Team play will be valued as a cooperative project.

#### **262B Soccer (1)**

Prereq: physical education major or perm. Focuses on producing performance competent in skills, with knowledge of the rules of the activities involved and with the ability to apply strategies in games. Team play will be valued as a cooperative project.

#### **263A Basketball (1)**

Prereq: physical education major or perm. The purpose of this course is to increase the basketball skill and knowledge competency of students majoring in physical education.

#### **263B Volleyball (1)**

Prereq: physical education major or perm. The purpose of this course is to increase the volleyball skill and knowledge competency of students majoring in physical education.

#### **264A Softball (1)**

Prereq: physical education major or perm. Focuses on developing student competency in softball skills, with an understanding of strategy in the activities and a knowledge of official rules and their application.

#### **264B Lacrosse (1)**

Prereq: physical education major or perm. Develops student competence in lacrosse with an understanding of strategy in the activities and a knowledge of official rules and their application.

### **265 Diving and Competitive Swimming (2)**

Prereq: HPER 104 or equiv. The purpose of this course is to

familiarize the student with the mechanics and performance skills of competitive swimming and diving. Adding this course as an elective to the aquatics specialization will widen the scope and better prepare physical educators with an aquatics interest.

**266 Elementary School Physical Education Workshop (2)**

Theory, teaching methods, techniques, and materials in elementary school physical education, with emphasis on appropriate rhythmical, individual, and group activities.

**268 Gymnastics for Men (2)**

Prereq: jr rank. Teaching methods, techniques, materials, theory, and practice in stunts and tumbling, apparatus, demonstrations and exhibitions, marching, and conditioning activities.

**270 Teaching of Physical Education (3)**

Lab and lecture experiences for teaching physical education in elementary school. Designed for elementary education students.

**273 Movement Education and Fundamental Skills (3)**

Theory, teaching methods, techniques, and materials in elementary school physical education with emphasis on basic movement education for levels K-3

**274 Sport and Game Skills for Elementary School Children (3)**

Theory, techniques, and materials for elementary school physical education program with emphasis on lead-up activities, creative game analysis, and sport and recreational skills for levels 4-6.

**275 Elementary School Rhythms and Dance (3)**

Rhythmics and dance activities for elementary level, involving movement exploration, creative dance, and traditional dance.

**290 The Art of Sport Officiating (3)**

Provides a meaningful, educational experience of a practical nature in area of sport officiating.

**302 Kinesiology (4)**

Prereq: ZOOL 301 Analysis of human movement based on anatomical and mechanical principles.

**305 Coaching of Swimming (2)**

Prereq 212 or perm. Theory of coaching swimming and diving; analysis of skill, methods, duties, and responsibilities.

**310 Program Planning and Facilities for Recreation (5)**

Prereq recreation major/minor or perm. Concepts and fundamentals of recreation programs, program planning and care, selection, and design of recreation facilities.

**311 Expedition Management (3)**

Will assist student in planning and competently leading wilderness camping expedition. Will acquaint student with all aspects of expedition leadership. Student will develop and lead expedition in competent, safe manner.

**314 Camping (4)**

Prereq recreation major/minor or perm. Introduction to and experiences in different methods of camping and various skills associated with camping.

**315 Outdoor Education and Recreation (4)**

Prereq recreation major/minor or perm. Designed to provide the student with fundamental knowledges necessary to provide learning experiences in the out of doors and for teaching necessary skills for outdoor living enjoyment.

**318 Coaching of Tennis (3)**

Prereq 212 or perm. Theory of coaching tennis; analysis of skills, strategies, methods, duties, and responsibilities. Limited practical work.

**319 Analysis of Current Research in Physical and Motor Development of Athletes (3)**

Prereq 212 or perm. Physiological, anatomical, and kinesiological research linking which maximizes motor performance and minimizes injury. Special emphasis on utilization of research in competitive sports.

**320 Coaching of Wrestling (3)**

Prereq: 212 or perm. Theory of coaching wrestling; analysis of skills, strategies, methods, duties, and responsibilities.

**322 Games, Rhythms and Gymnastics for Elementary School Children (3)**

Prereq: secondary specialization. Overview of the theory, teaching methods and materials for elementary school physical education for grades K-8. HPER 322 is designed to emphasize similarities and differences of teaching physical education at the secondary and elementary level for secondary specialization student.

**324 Coaching of Soccer (3)**

Theory of coaching soccer; analysis of skills, strategies, methods, duties, and responsibilities.

**325 Human Dynamics in Coaching (3)**

Prereq: 212 or perm. Interpersonal dimensions of coaching and participating in interscholastic athletic program.

**328 Instructor's First Aid (3)**

Prereq: current first aid certificate. As prescribed and certified by the American Red Cross.

**329 Introduction to Athletic Training (2)**

Prereq: ZOOL 301, ZOOL 345, and perm. Treatment and prevention of athletic injuries.

**331 Therapeutic Modalities (2)**

Prereq: 329. Skills, principles, and knowledge of therapeutic modalities used in rehabilitation of athletic injuries.

**333 Theory of Adapted Activities (3)**

Prereq: ZOOL 301. Organization of physical activity programs adapted to needs of atypical individuals.

**334 Clinical and Field-based Experiences in Physical Education (1-4)**

Prereq: jr rank; 134, 273 or 274, or one theory and practice course. Supervised practice in organizing, managing, and teaching physical education activities to public-school-age children in public school and clinical settings. May be repeated in excess of 4 hrs credit with approval.

**336 Field Experiences in Recreation (3)**

Prereq jr rank and/or perm. Designed to provide jr recreation student with an opportunity to acquire experience in skills and techniques involved in differing areas of recreation.

**337 Dance Composition (2)**

Prereq. 108 or equiv. Basic principles of composition, presentation, and choreography.

**339 Athletic Officiating – Football (3)**

(fall only) Rules, mechanics, and procedures in officiating. Practice under actual game conditions in Intramural Sports Program.

**340 Athletic Officiating – Basketball (3)**

(winter only) Rules, mechanics, and procedures in officiating. Practice under actual game conditions in Intramural Sports Program.

**341 Athletic Officiating – Baseball (3)**

(spring only) Rules, mechanics, and procedures in umpiring. Practice under actual game conditions in Intramural Sports Program.

**342 Sports Officiating III (1)**

(spring) U.S.W.L.A. rules and procedures in officiating lacrosse; or N.A.G.W.S. and Federation rules and procedures in officiating track & field. Fee required for those taking local, state, or national rating examination.

**345 Camp Leadership (2)**

Responsibilities of camp personnel at executive, administrative, supervisory, and functional levels. Includes different types of organized camps and their individual programs.

**350 Independent Study (1-5)**

Prereq perm. Study and/or research in selected fields related to health, physical education, athletics, intramurals, or recreation under direction of HPER undergraduate committee and faculty member.

### 351 Coaching of Golf (2)

Prereq: 212 or perm. Theory of coaching golf: analysis of skills, methods, duties, and responsibilities.

### 352 Coaching of Ice Hockey (3)

Prereq: 212 or perm. Theory of coaching ice hockey: analysis of skills, strategies, methods, duties, and responsibilities.

### 353 Coaching of Lacrosse (3)

Prereq: 212 or perm. Theory of coaching men's and women's lacrosse: analysis of skills, strategies, methods, duties, and responsibilities.

### 354 Coaching of Volleyball (3)

Prereq: 212 or perm. Theory of coaching volleyball: analysis of skills, strategies, methods, duties, and responsibilities.

### 356 Coaching of Field Hockey (3)

Prereq: 212 or perm. Theory of coaching field hockey: analysis of skills, strategies, methods, duties, and responsibilities.

### 360 Environmental Health and Safety (5)

Prereq: 90 hrs. Basic environmental health and safety concepts, practices, and procedures of practical application in community health agencies.

### 364 Community Health Field Experience (1-5)

Prereq: jr rank, 370. Observation and participation in activities of community health agency or medical facility. Students must apply for placement during preregistration.

### 365 Coaching of Basketball (3)

Prereq: 212 or perm. Theory of coaching basketball: analysis of skills, strategies, methods, duties, and responsibilities.

### 366 Coaching of Baseball/Softball (3)

Prereq: 212 or perm. Theory of coaching baseball: analysis of skills, strategies, methods, duties, and responsibilities.

### 367 Coaching of Football (3)

Prereq: 212 or perm. Theory of coaching football: analysis of skills, strategies, methods, duties, and responsibilities.

### 368 Coaching of Track (3)

Prereq: 212 or perm. Theory of coaching track: analysis of skills, strategies, methods, duties, and responsibilities.

### 369 Teaching of Health (5)

Prereq: HPER 202; jr rank. Instruction, principles, and curricula used in presenting health information to pupils in elementary and secondary schools.

### 370 Community Health Problems (4)

Prereq: 202. Institutional frameworks for promoting and maintaining health of the people of the community, state, and nation.

### 371 Theory and Practice of Team Sports (3)

Prereq: 262, 263, or 264. Analysis and teaching progression of team sport skills. Organizational techniques and practices. Lesson and unit planning.

### 372 Theory and Practice of Individual Sports (3)

Prereq: 141, 221, or 223. Analysis and teaching progression of individual sport skills. Organizational techniques and practices. Lesson and unit planning.

### 373 Theory and Practice of Aquatics (3)

Prereq: 104, and 218 (or 220). Analysis and teaching progression of aquatic skills and related activities. Organizational techniques and practices. Lesson and unit planning.

### 374 Theory and Practice in Rhythmic Activities (3)

Prereq: 107 or 108, 115 and 116, intermediate modern dance skill recommended. Teaching progression and materials for rhythmic programs on secondary level. Lesson and unit planning.

### 375 Theory and Practice of Women's Gymnastics (3)

Prereq: 222 and 225. Materials, techniques, and practice of artistic and rhythmic gymnastics. Lesson and unit planning.

### 376 Principles and Practices of Therapeutic Recreation (3)

Prereq: recreation major/minor or perm. Study of therapeutic

recreation service, principles, and practices in various types of institutions.

### 377 Theory and Practice of Elementary Physical Education

Prereq: HPER 273, 274, 275. The study of the scope and sequence of the elementary physical education program (K-8), the development of an understanding for the inter-relationship of curriculum, unit and lesson planning, and the refinement of teaching skills unique to teaching elementary physical education.

### 378 Theory and Practice of Men's Gymnastics (3)

Prereq: 4 credits in gymnastics. The purpose of this course is to assimilate the knowledges obtained and skills developed in the gymnastics sequence of courses. Lesson and unit planning.

### 380 Safety Education (4)

Preparation for assuming responsibility for programs of safety education and accident prevention in schools, industry, and public services.

### 381 Administration of Intramural Sports (4)

Organizing and administering a program of intramural sports for all age levels.

### 402 Learning Strategies in Physical Education (3)

Prereq: 2 theory and practice courses. Discussion and application of selected methods and techniques used in teaching of physical education.

### 403 History of Recreation (3)

Prereq: recreation major/minor or perm. Study of historical development of recreation from early worlds to present. Emphasis on contribution of recreation and its effect on man throughout history and its impact and implication for man's use of leisure time in present-day society.

### 404 History and Principles of Physical Education (4)

Prereq: jr or sr rank. History of sport and physical education from ancient to modern times. Principles underlying physical education in modern program of education.

### 405 Motor Learning (4)

Prereq: PSY 275, ZOOL 345. Consideration of psychological, sociological, and physiological bases of learning and application of these theories to performance.

### 406 Organization and Administration of Physical Education (4)

Prereq: sr rank. Organization and administration of physical education, intramural and athletic programs in elementary and secondary schools.

### 409 Tests and Measurements (4)

Prereq: sr rank. Administration and evaluation of tests in health, physical education, and athletics; practice in handling test data by elementary statistical methods.

### 412 Administration of Sports (3)

Prereq: 212 or perm. Focuses upon legal questions, public relations, ethics, budgeting, recruiting, crowd control, evaluation, and personnel.

### 413 Health Aspects of Aging (3)

Prereq: 202 or perm. (spring) Theories of aging involving changes in structure and performance presented. Emphasis on normal aging changes, mental health, health promotion, and community health.

### 414 Physiology of Exercise (4)

Prereq: ZOOL 345 or equiv. Fundamental concepts describing reaction of organ systems to exercise; study of work produced by muscle; special areas include sport conditioning, muscular fatigue, physiology and nutrition in exercise, weight control and exercise; physical fitness; exercise and environmental stresses; review of recent research in exercise physiology and human performance.

### 415 Physiology Exercise Lab (2)

### 420A Advanced Athletic Training I (4)

Prereq: 329. Advanced techniques in prevention and care of athletic injuries to upper extremities.

**420B Athletic Training II (4)**

Prereq: 329. Advanced techniques in prevention and care of athletic injuries to lower extremities.

**421 Athletic Training Practicum (2)**

Prereq: 329. To develop athletic training skills through practical experience with concentration on preventive and protective techniques.

**425 Controlling Stress and Tension (2)**

Prereq: 202 or perm. Holistic approach to stress management covering recognition of tension, physiological response, relaxation techniques, and individual stress profile.

**433 Recreation for the Mentally Retarded (3)**

Prereq: perm. Preparation for presenting activities and evaluating mentally retarded and learning disabled children and youth in areas of body mechanics, physical fitness, games of low organization, sports, rhythms, stunts, tumbling, and recreation activities.

**434 Clinical and Field-based Experiences in Physical Education (1-4)**

Prereq: sr rank; 134, 273 or 274, or one theory and practice course. Supervised practice in organizing, managing, and teaching physical education activities to public-school-age children in public school and clinical settings. May be repeated in excess of 4 hrs credit with approval.

**440 Internship in Recreation (16)**

Prereq: recreation major and perm. Supervised professional field work experiences in an approved program of recreation.

**449 Administration of Recreation (4)**

Prereq: sr rank. Programs and program building; administration of playgrounds, community centers, and recreational activities.

**453 Clinical Observation and Practice in Physical Medicine and Rehabilitation (6)**

Prereq: ZOOL 301, 345 or equiv. (summer) Concentrated summer school field course at V.A. hospital, Chillicothe. Instruction by hospital corrective therapy staff. Open to sr majors or grad students in physical education.

**460 Understanding Play (3)**

Study of selected play theory for purpose of developing recreation therapy programs

**464 Community Health Services Practicum (15)**

Prereq: sr rank. Participation in activities of an official or voluntary public health agency. Supervision of experience to be done by agency personnel and University faculty.

**470 Program Planning for the Handicapped and Confined (3)**

Prereq: HPER 120 or EDSP 271. Designed to prepare student to assess handicapping conditions, to determine consequences of these conditions, and to direct and plan therapeutic activities which contribute to disabled person's maximum recreational functioning

**485 Perceptual Motor Development in Children (3)**

Prereq: 106 and 405. Principles and practices in perceptual-motor development as they relate to children's movement experiences

**495 School Health Problems (5)**

Prereq: 369 and sr rank. Principles, problems, organization, and administration of school health programs, including health services, healthful school environment, health instruction, and school and community relationships

## HEARING AND SPEECH SCIENCES

The curriculum in hearing and speech sciences is designed to give the student a basic understanding of the causes and treatment of various speech and hearing disorders. Students who

plan to qualify for an Ohio teaching certificate in speech and hearing therapy make application for this certificate through the College of Education. Although student teaching is not required for graduation it is strongly recommended. Students who do not intend to qualify for this certificate may apply personally to the HSS undergraduate coordinator for a clinical internship.

**107 Voice and Articulation (2)**

Designed to help each student recognize, evaluate, and compensate for or improve speech production characteristics.

**108 Introduction to Speech Disorders (5) (2A)**

Symptoms, causes, effects, and evaluation of disorders of speech, voice, and language.

**209 Phonetics (4) (2A)**

(fall, spring) Speech sounds from a sociological and physiological point of view. Mastery of International Phonetic Alphabet and English phonetic transcription.

**210 Language Development (5)**

Prereq: 209, LING 270. (fall) Provides foundation in normal speech and language development. Development of meaning, symbolic representation, morphology, and syntax.

**213 Anatomy (4)**

(winter) Structures, musculature, and functions involved in respiration, phonation, resonance, and articulation for speech.

**222 Diagnostics (4)**

Prereq: 12 hrs speech pathology, 9 hrs psychology. (spring) Types of diagnosis in evaluation of speech and language problems. Screening tests; use of statistics in testing; basic interview and history procedures.

**240 Practicum (2)**

Prereq: HSS majors only. Introduction to therapy training through lectures and video tapes of diagnosis, therapy, and various areas of profession. 2 class meetings per wk. Qtr taken determines subsequent practicum sequence.

**250 Speech Science (4)**

(winter) Physical properties of speech signals. Analysis of speech and speech perception. Lab exercises and experiments included.

**270 Basic Audiology (4)**

Prereq: 250. (spring) Anatomy and neurology of audition. Measurement of hearing with pure tone techniques and interpretation of results of such measurements in terms of social and educational handicap.

**315 Stuttering (3)**

Prereq: HSS majors only; 9 hrs psychology. (fall) Consideration of causes, types, and effects of stuttering. Evaluation of stuttering. Practical consideration of therapy for stutterers, with emphasis on children's problems.

**318 Articulation Disorders (4)**

Prereq: HSS majors only; 209, 210. (fall) Phonetic acquisition, articulation evaluation. Emphasis on practical approaches to therapy for individuals with articulation disorders.

**319 Voice and Resonance (3)**

Prereq: HSS majors only, 213. (spring) Consideration of types and causes of functional and organic voice and resonance problems. Evaluation of phonatory problems. Emphasis on practical approaches used in public school therapy

**336 Speech and Hearing Disorders in the Public Schools (3)**

Nature, causes, and treatment of defective speech in public schools with special reference to role of classroom teacher. Not open to HSS majors

**341 Practicum (3)**

Prereq: 240, passing speech proficiency and phonetic proficiency tests. Diagnosis, planning of therapy, therapy experience in clinical facility. 2 class meetings per wk plus clinic assignment

**343 School and Clinical Programs (2)**

Prereq: HSS majors only. (winter) Organization, planning, and function in public school, community, and agency programs. Prerequisite to student teaching

**344 Disorders of Language (4)**

Prereq: 210, 318. (winter) Introduction to study of disorders of language in children. Diagnosis of problems, assessment of language abilities. Methodologies and techniques in perceptual, psychomotor, and language and speech training.

**345 Social Dialects (3)**

Prereq: 209, 210, 318. (spring) Introduction to study of social dialects. Problems and controversies surrounding various issues of speakers of social dialects. Training in recognition of dialectal variations and in teaching standard English to speakers of other dialects.

**424 Neuropathology (4)**

Prereq: 213. (winter, spring) Anatomy and physiology of central, peripheral, and autonomic nervous systems. Types, causes, and syndromes of more significant pathologies of speech and language. Particular attention paid to neurological disorders.

**433 Professional Training Seminar (3)**

Prereq: sr rank, perm. Seminar in concepts underlying therapy procedures. Application of psychological, physiological, and neurological principles in various rehabilitation approaches. Lab time required.

**437 Speech and Hearing Therapy in the Public Schools (4)**

Prereq: eligibility for student teaching. Methods, organization, and implementation to speech and hearing programs in public schools. Must be taken concurrently with student teaching by majors assigned to Athens area.

**442 Practicum (3)**

Prereq: 341, grade of C or better in 318 and 344. Diagnosis, planning of therapy, therapy experience in clinic facility. 1 class meeting per wk plus clinic assignment.

**442C Clinical Internship (1-15)**

Prereq: approval of clinic director. Placement in a clinic setting for 1 qtr. Application of diagnosis, therapy planning, and therapy techniques. Must have been applied for fall qtr of junior year and approved for internship. Apply in writing to HSS undergraduate coordinator.

**498 Special Problems (1-15)**

Prereq: written proposal and perm in qtr prior to registration. Not open to graduate students.

**499 Independent Reading in Speech Pathology, Audiology, and Speech Science (1-15)**

Prereq: written proposal and perm in qtr prior to registration. Not open to graduate students.

## HISTORY

The major requirement for the A.B. degree consists of a minimum of 52 hours, including eight hours at the 100 level and eight hours at the 200 level (unless excused as a result of taking a placement test), and 36 hours at the 300-400 level. Beyond the 200 level the following minimum hours are required: HIST 301, two courses in United States history, two courses in European history, and two courses from the following fields — ancient, Africa, Asia, Latin America, Canada, and Middle East. The 100 level should be taken during the freshman year and the 200 level during the sophomore year. Unless otherwise stated, the prerequisite for 300 level courses is sophomore standing or above and the prerequisite for 400 level courses is junior or senior standing. Courses in economics, geography, political science, statistics, and sociology and anthropology are suggested as electives. Completion of these requirements fulfills the Arts and Sciences College requirements of at least nine hours in the major at the junior-senior level.

A minor in history consists of a minimum of 28 hours, including at least eight hours at the 100-200 level and at least 16 hours at the 300-400 level. A student pursuing a history minor

will plan an academically cohesive program in consultation with a history faculty advisor.

**101 Western Civilization in Modern Times (4) (2S)**

Renaissance to 1648: Renaissance, Reformation, origins of national state system, diplomacy, and imperialism as applied to Portugal, Spain, and Hapsburg Empire, and commercial and scientific revolutions. When possible, majors should take 101-102-103 in sequence. Nonmajors may elect 102 without taking 101; they may elect 103 without taking 101 or 102.

**102 Western Civilization in Modern Times (4) (2S)**

Continuation of 101. Covers 1648 to 1848: absolutism, constitutionalism, operation of coalition diplomacy, and imperialism as applied to France and Britain; westernization of eastern Europe, enlightenment, French Revolution, agricultural, commercial, and industrial revolutions and growth of ideologies — liberalism, socialism, and nationalism. When possible, majors should take 101-102-103 in sequence. Nonmajors may elect 102 without taking 101; or 103 without taking 101 or 102.

**103 Western Civilization in Modern Times (4) (2S)**

Continuation of 101-102. Covers 1848 to present; continued industrial revolution and spread of liberalism, socialism, and nationalism; rise and fall of German bid for power in 2 world wars; new ideologies of materialism, positivism, Social Darwinism, irrationalism, totalitarianism; Russian and Chinese revolutions and international communism; rise and fall of western empires in Africa and Asia. When possible, majors should take 101-102-103 in sequence. Nonmajors may elect 102 without taking 101; they may elect 103 without taking 101 or 102.

**121 Western Heritage: Classical Age (4) (2H)**

Account of origins of western heritage from ancient Near East to end of Classical Age. Included are such topics as ancient religions, philosophies, literature, and visual arts with particular emphasis on Greece and Rome.

**122 Western Heritage: Medieval Legacy (4) (2H)**

A discussion of period from decline of Roman Empire to beginning of Renaissance focusing on development of Judaeo-Christian traditions, concept of civilization, and emergent individualism. Important subtopics include growth of universities, chivalry, scholasticism, and humanism.

**123 Western Heritage: Modernity (4) (2H)**

Major intellectual currents and cultural results from time of Renaissance to present examined in humanistic perspective. Included are such topics as origins of modern philosophy, languages, revolutions, political ideologies, and cultural pluralism.

**131 West Meets Non-West:****A Historical Introduction (4)**

Introduces modern history of non-Western world (Africa, Asia, Middle East, and Latin America) by focusing, selectively, on non-Western events and developments involving significant contact with West.

**211 American History to 1828 (4) (2S)**

Political, diplomatic, social, and economic development of American history. Covers 1607 to 1828: colonial America, founding of the new nation, and early national period. When possible, majors should take 211-212-213 in sequence. Nonmajors may elect 212 without taking 211; they may elect 213 without taking 211 or 212.

**212 History of the United States, 1828-1900 (4) (2S)**

Continuation of 211. Political, diplomatic, social, and economic development of American history. Covers 1828 to 1900: Jacksonian democracy, territorial expansion, sectionalism and controversy, Civil War, reconstruction, and impact of expanded Industrial Revolution. When possible, majors should take 211-212-213 in sequence. Nonmajors may elect 212 without taking 211; they may elect 213 without taking 211 or 212.

**213 History of the United States Since 1900 (4) (2S)**

Continuation of 211-212. Political, diplomatic, social, and economic development of American history. Covers 1900 to present: progressive movement, WW I, prosperity and depres-

sion, WW II, and problems of cold war era. When possible, majors should take 211-212-213 in sequence. Nonmajors may elect 212 without taking 211; they may elect 213 without taking 211 or 212.

**265A Hitler and His Nazis (4) (2S)**

*R. Whealey.* Rise of Hitler to 1933; Hitler takeover; totalitarianization of Germany; Nazi foreign policy; WW II: Hitler's war on the Jews; Hitler's fall; meaning of Fascism.

**297T Honors Tutorial Seminar, U.S. History (3-5)**

Prereq: admission to Honors Tutorial College. (fall) Covers U.S. history, 1607 to present.

**298T Honors Tutorial Study, U.S. History (1-5)**

Prereq: 297T. (winter) Independent study, U.S. history.

**299T Honors Tutorial Study, U.S. History (1-5)**

Prereq: 298T. (spring) Independent study, U.S. history.

**300A Colonial America to 1689 (4) (2S)**

*B. Steiner.* English background, establishment of settlements, first economies, evolution of political and religious structures, relations with England, internal conflicts, Glorious Revolution.

**300B Colonial America, 1689-1763 (4) (2S)**

*B. Steiner.* Governmental changes, credit and currency, Great Awakening, cultural developments, old colonial system, Anglo-French rivalry, nature of colonial society, problems of maturing political units.

**300C Revolutionary Era, 1763-1789 (4) (2S)**

*B. Steiner.* Causes of American Revolution and struggle for independence. Confederation, movement for new government, framing of Constitution.

**301J Historical Research and Writing (4) (1J)**

*D. Baxter.* Deals with techniques and mechanics of historical research and writing. After introduction to use of primary and secondary sources and use of history reference material, students will be guided through steps of research and writing: compiling bibliography, analysis of sources, organization of evidence, and style and composition of written paper. Open not only to history majors, but, with perm of instructor, to those of other disciplines interested in history as research tool.

**302 American Indians (4) (2S)**

*R. Daniel.* Treats Indian society before white contact; Spanish, French, and English impact, Indian removal; Indian wars; problems of cultural contact, preservation versus assimilation; Indian society today

**303 United States in World War II (4) (2S)**

*G. Lobdell.* Military and diplomatic role of United States in WW II, political, economic, and social impact of the war on that nation

**304 Founding the American Republic: 1789-1815 (4) (2S)**

Shaping America's political, social, and economic institutions, constitutional development and foreign policy from Federalists (Washington and Adams) through Jeffersonians

**308A Sectional Controversy: 1815-1850 (4) (2S)**

*P. Field.* Conflicts of aristocratic and democratic (Jacksonian) elements in American society and politics, problems arising from slavery, westward expansion, industrial growth, immigration, and reform movements

**308B The Civil War and Reconstruction (4) (2S)**

*P. Field.* Forces making for increased sectionalism in 1850s, rise of new parties, military engagements, society and institutions in North and Confederacy during wartime, attempts to restructure Southern society after the war and why they failed

**308C Foundations of Modern America: The Gilded Age, 1877-1901 (4) (2S)**

*P. Field.* Labor unrest, nativism and anti semitism, imperialism, government corruption, Social Darwinism, urban growth, Victorian morality, and Indian wars examined as outgrowths of efforts of American people to adapt to modernization and industrialization in late 19th century

**310A The United States in Recent Times, 1900-1920 (4) (2S)**

*A. Hamby, G. Lobdell.* Progressive era, American imperialism, WW I, rejection of Wilsonian liberalism.

**310B The United States in Recent Times, 1920-1939 (4) (2S)**

*A. Hamby, G. Lobdell.* Temper and culture of 20s, Republican ascendancy and Democratic revival, Great Depression, F.D. Roosevelt and New Deal.

**310C The United States in Recent Times, Since 1939 (4) (2S)**

*A. Hamby, G. Lobdell.* Abandonment of isolation, WW II, American politics in later Roosevelt years, Cold War, Truman and Fair Deal, politics and problems of 50s and 60s

**312 History of the Industrial Revolution in the United States, 1850-1917 (4) (2S)**

*R. Daniel.* Origins of factory system, impact of Civil War, rise of heavy industry, problems of financing and control, influence of progressive era.

**313 Jews in American History (4) (2S)**

*M. Fletcher.* Examines political, economic, and religious interaction between Jews and American society. Includes Sephardic and Ashkenazic immigrants, growth of Reform and Conservative Judaism, Zionism, and modern problems of American Jews. From 1654 to present.

**314 Women in American History (4) (2S)**

*R. Daniel.* Changing view American society has taken of role women should play and role women *did* play. Changing opportunities for women in education and careers. Changing legal status and political rights. Women rebels and reformers.

**314A Social and Cultural History of the United States, 1607-1820 (4) (2H)**

*R. Daniel.* Role of minorities, class structure, and religion in forming American society; development of American painting, architecture, music, literature, education, and science as expressions of Puritanism, enlightenment, and nationalism.

**314B Social and Cultural History of the United States, 1820-1890 (4) (2H)**

*R. Daniel.* Role of minorities, class structure, and religion in forming American society; development of American painting, architecture, music, literature, education, and science as expressions of romanticism, Social Darwinism, and pragmatism.

**314C Social and Cultural History of the United States, 1890 to Date (4) (2H)**

*R. Daniel.* Role of minorities, class structure, and religion in forming American society; development of American painting, architecture, music, literature, education, and science as expressions of pragmatism and existentialism.

**314D American Social Thought to 1815 (4) (2H)**

*C. Alexander.* Major aspects of intellectual history of American colonies and United States to 1815, organized around 2 major themes: Puritanism, and secularization of American thought in 18th century

**314E American Social Thought, 1815-1890 (4) (2H)**

*C. Alexander.* Major aspects of intellectual history of United States, 1815-1890, stressing rise of romantic nationalism; triumph of democratic attitude; slavery controversy; impact of Civil War and Darwinian evolution

**314F American Social Thought, 1890 to the Present (4) (2H)**

*C. Alexander.* Major aspects of intellectual history of United States since 1890, with principal attention to continuing impact of evolutionary naturalism, especially in development of pragmatism, trends in liberal and conservative political ideologies, rise of pessimistic theology and its ramifications, modernism in arts, New Radicalism and Counter Culture

**315A History of the Black Man in America to 1865 (4) (2S)**

*M. Fletcher.* Beginning with introduction of slavery in 1619,



course deals with black person's role in America through the Civil War. Concerns slavery, abolition, and many attempts by black people to improve their position.

**315B History of the Black Man in America Since 1865 (4) (2S)**

*M. Fletcher.* Concerns Emancipation and its continuing effects on the black person in America. Life in the South, migration to the North, and conservative and radical attempts by the black community to deal with these problems.

**316A History of United States Foreign Relations to 1914 (4) (2S)**

*J. Gaddis.* United States foreign relations from war for independence to WW I, stressing development of traditional policies — isolationism, neutrality, Monroe Doctrine — and emergence of the United States as a world power.

**316B History of United States Foreign Relations, 1914-1945 (4) (2S)**

*J. Gaddis.* American foreign relations in 2 world wars and the interwar period, emphasizing shifting perceptions of vital interests involved in transition from intervention to nonentanglement to intervention again and emergence as superpower.

**316C History of United States Foreign Relations, 1945-present (4) (2S)**

*J. Gaddis.* American foreign relations in Cold War and after, emphasizing confrontation between United States and Communist world, emergence of detente, and background of current foreign policy issues.

**317A Ohio History to 1851 (4) (2S)**

*B. Steiner.* Ohio to 1851: prehistoric Ohio; early exploration, settlement, government; statehood and economic development; political parties, anti-slavery movement, constitutional change.

**317B Ohio History Since 1851 (4) (2S)**

Ohio since 1851; pre-Civil War politics, Civil War. Economic and political transition during post-Civil War. 20th century problems. Biographical sketches.

**318 American Westward Movement (4) (2S)**

Prereq: soph rank. Western frontier in America to 1890. Explorations, Indian trade, land policies, pioneer life, traders and trappers, miners, cattlemen, railroad builders, and farmers.

**320 History of the Middle West (4) (2S)**

Development of political, economic, and social institutions and attitudes characteristic of Ohio and the Middle West since 1787. Includes 20th century community relationships, problems, and forms of behavior.

**321A History of the Military in America: 1600 to 1898 (4) (2S)**

*M. Fletcher.* Military institutions in American history; role of technology in warfare; innovations and reforms in the military; war and its conduct; military and civilian society in war and peace.

**321B History of the Military in America: 1898 to Present (4) (2S)**

*M. Fletcher.* Continuation of 321A. See 321A for description.

**322 Latin America in the 19th Century (4) (2T)**

*S. Ramirez-Horton.* Causes of wars for independence; institutional adjustments during and after wars; problems of regionalism and caudillism; influence of liberalism and positivism in shaping Latin American republics.

**323A Latin American Survey, Colonial Period (4) (2T)**

*S. Ramirez-Horton.* Pre-Columbian civilization; conquest and colonization; evolution of institutions; wars for independence.

**323B Latin American Survey, National Period (4) (2T)**

*S. Ramirez-Horton.* Breakdown of colonial order and struggle for nationality in 19th century; 20th century reform, revolution, and development of modern nation states.

**325 Inter-American Relations (4) (2T)**

*S. Ramirez-Horton.* History of Latin America-U.S. relations since Independence; state-to-state relations within Latin Ameri-

ca; Latin American participation in world wars and in international organizations.

**326A Recent Latin America: Argentina, Brazil and Mexico (4) (2T)**

*S. Ramirez-Horton.* Reshaping and modernization of Mexico by revolution, and struggle to convert Argentine and Brazilian regionalisms, divided societies, and resources into modern, urban integrated nations.

**326B Recent Latin America: Andean Nations (4) (2T)**

*S. Ramirez-Horton.* Process of modernization in Ecuador, Peru, and Bolivia since the Wars of Independence and its impact on their social and political structure.

**326C Recent Latin America: Central America and the Island Republics (4) (2T)**

*S. Ramirez-Horton.* Search for national identity and modernization in area of special interest to United States. Consideration of alternative national solutions with special attention to Castro revolution and its historical background.

**328 The World of Aristophanes (3) (2H)**

*D. Richter.* Political, social, and cultural life of Athens in so-called Golden Age of ancient Greece, 5th century B.C. Special attention to Aristophanes' comedies as mirror of this period.

**329A Ancient Egypt and Mesopotamia (4) (2H)**

*D. Richter.* Prehistoric eras; origins of Mediterranean civilizations; problems of ancient chronology; civilizations of Sumerians, Babylonians, Egyptians, Assyrians, Biblical Hebrews, and Persians. Stresses archaeological and literary sources, comparative social and religious concepts, acculturation, contributions to western civilization.

**329B Ancient Greece (4) (2H)**

*D. Richter.* Aegean prehistory, Minoan civilization, Mycenaean Greeks, Dorian invasions, Greek Renaissance, growth of the polis, Athenian society and culture, Persian and Peloponnesian Wars, political history of Greece to Alexander. Stresses archaeological sources, mythology, and drama, Hellenic contributions to western civilization.

**329C Ancient Rome (4) (2H)**

*D. Richter.* Early peoples of Italy, Etruscans, constitutional development of Republic, growth of empire, civil wars, history of principate to Constantine. Stresses archaeological sources, Latin literature, Roman life and institutions, Roman contributions to western civilization.

**330 History through Film (4) (2H)**

Examination of selected topics in U.S., European, or Third World history through films and readings accompanied by lec and disc.

**333 Oil, Energy, and International Diplomacy (4) (2S)**

*G. Doxsee.* Energy crisis in historical perspective. Focus on oil industry during past century with particular attention to Middle East and North Africa; economic, environmental, geological, political, and technological elements of current situation.

**334 The Arab-Israel Dispute (4) (2T)**

*G. Doxsee.* Analysis of underlying causes of Arab-Israeli confrontation from 1890s to present, including origins of Arab nationalism and Zionism, evolution of British Mandate in Palestine, Great Power involvement in Middle East, and recent developments in conflict between Israel and Arabs.

**335A Survey of Middle East History to 1800 (4) (2T)**

*G. Doxsee.* Islamic history and civilization from rise of Islam to end of 18th century. Includes discussion of role of prophet Muhammad, doctrines and institutional system of Islam, medieval Islamic caliphates and their cultural achievements, and contributions of Persians and Turks to Islamic civilization.

**335B Survey of Middle East History Since 1800 (4) (2T)**

*G. Doxsee.* History of Middle East since era of French Revolution. Disintegration of Ottoman Empire, emergence of contemporary Middle East political system, impact of nationalism, secularism and industrialism on the region, and position of Middle East in contemporary world affairs.

**336A North Africa in Modern Times (4) (2T)**

G. Doxsee. The Maghrib: its geography, ethnic composition, and history since antiquity; French conquest of Algeria, Tunisia, and Morocco; administrative systems; economic development; French-Muslim relations.

**336B North Africa Since 1914 (4) (2T)**

G. Doxsee. Rise of nationalism; struggle for political independence; political, economic, and social problems in independent North Africa.

**338 History of West Africa (4) (2T)**

A. Booth. History of West Africa from early times to present; peopling of sudanic and forest regions; development of trade; Islam and rise of sudanic empires; slave trade and forest states; colonial era; independence movements; problems of nationalism.

**338A History of East Africa (4) (2T)**

S. Miers. History of East Africa from early times to present, with particular emphasis on period since 1750. Although neighboring countries also studied, greatest attention paid to region which comprises present-day Kenya, Uganda, and Tanzania.

**341A Africa to the 17th Century (4) (2T)**

S. Miers. Africa in ancient world; spread of agriculture and iron working; rise of Islam; migrations of peoples; development of states; arrival of Europeans.

**341B Africa from the 17th to the Late 19th Century (4) (2T)**

S. Miers. Africa in 17th century; slave trade; religious revolutions in western Sudan; development of African states; commercial revolution of the 19th century; birth of plural society in South Africa; European partition of Africa.

**341C Africa from the Late 19th Century to the Present Day (4) (2T)**

S. Miers. Establishment of European rule in Africa; colonial period; rise of nationalism; decolonization and independence; problems of modern Africa.

**342 History of South Africa (4) (2T)**

A. Booth. Ancient man; Bantu migrations; coming of Europeans; conflict between African, Boer, and Briton; rise of Zulus and Wars of Calamity; rise of colonial tensions and Boer War; the Union; rise of parties and Age of the Generals; WW I; industrial and social conflict; WW II; election of 1948 and emergence of Afrikaner nationalism; racial tensions of 1970s.

**343 Revolutions in Southern Africa (4) (2T)**

Historical background, and developments up to present, of revolutions in Mozambique, Angola, Zimbabwe (Rhodesia), Namibia (South West Africa), and Azania (South Africa). Format is 2 lec, 1 disc, and 1 film per wk.

**344A History of the Malay World (4) (2T)**

W. Frederick. Comparative view of Southeast Asian archipelago, emphasizing Indonesian civilization after 1750. Penetration of West, struggle with imperialism and modernization, and present dilemmas. Indigenous views focus of attention.

**344B History of Burma and Thailand (4) (2T)**

W. Frederick. Comparative study of neighboring Buddhist states, emphasizing themes of change and continuity since mid-18th century. Special attention given to divergent responses to colonialism and Western-style development, and similarities in political and social forms.

**344C History of Vietnam (4) (2T)**

W. Frederick. Modern Vietnamese civilization since 15th century, emphasizing political and social change after 1800. Special attention given to Vietnamese struggle with outside powers, including China, France, United States, and Soviet Union.

**344D Chinese in Southeast Asia (4) (2T)**

D. Jordan. Historical role of this potent immigrant community in setting of Southeast Asian countries. China's imperial interests in area: tribute system, relationships between overseas Chinese, European colonialists, and indigenous peoples and role of Chinese communities in contemporary Southeast Asian politics.

**345A Southeast Asia to c. 1750: The Creative Synthesis (4) (2T)**

W. Frederick. Highlights of pre- and proto-history and development of classical states. Emphasis on cultural synthesis (Hindu, Buddhist, Muslim, and animist influences) and theme of change and continuity in both Great and Little traditions of region.

**345B Southeast Asia, c. 1750 to 1942: Change and Conflict (4) (2T)**

W. Frederick. Indigenous change and widening effects of western penetration, with emphasis on social and cultural developments. Nature of colonialism in region, and response of colonized seen in light of both traditional and modern influences.

**345C Southeast Asia, 1942 to the Present: The Search for Stability (4) (2T)**

W. Frederick. Japanese occupation and its relationship to great national revolutions of 1940s. Social and cultural contents of nationalism and revolt, search for new political forms, and struggle against disunity and poverty.

**346A Traditional China (4) (2T)**

D. Jordan. Follows major aspects of Chinese civilization through their development from Shang bronze age, through primary philosophies, and up to final refinements of its massive imperial government and traditional society.

**346B Modern China (4) (2T)**

D. Jordan. Weakness of empire in 1880s confronted by dynamic western economic and political imperialism; response to pressures of nationalism from without and from within; great flux in modern Chinese society and politics.

**348A Traditional Japan (4) (2T)**

D. Jordan. Traces major elements of Japanese culture and thought from their indigenous origins, through major Chinese influence, results of medieval civil warfare, and up to premodern workings of Japan's sophisticated commercial economy.

**348B Modern Japan (4) (2T)**

D. Jordan. Political weakness of Tokugawa system leading to opening of Japan to western trade and restoration of emperor; favorable economic and political base which allowed Japan to enter successfully into competition with European nations; Japan's ultra-national era and postwar reconstruction.

**350 The Civilization of India (4) (2T)**

D. Jordan. Environmental and spiritual influences on Indian civilization; Hindu and Muslim lifestyles; successive influxes of foreign peoples and cultures; evolution of Indian traditions. Indian literature and readings on Indian culture set in historical framework.

**351 Medieval People (4) (2H)**

C. Reeves. Inquiries in depth into lives and epochs of representative individuals of medieval Europe: Middle Ages through biography.

**352 Medieval Civilization (4) (2H)**

C. Reeves. Transmission of Christianity and classical culture to the barbarians and their work of combining the 2 into a new civilization in the early Middle Ages. Medieval civilization at its height: the Church, the schools and scholastic thought, and secular culture.

**353A The Early Middle Ages (4) (2H)**

C. Reeves. Foundation of Medieval synthesis, 300-1100: collapse of Roman world, establishment of successor states, spread of Christianity, formation and development of European culture.

**353B The Later Middle Ages (4) (2H)**

C. Reeves. Maturing of medieval Europe and transition to early modern era, 1100-1450: developments in commerce, religious life and institutions, governments, politics, learning, and secular culture.

**354 Early Christianity: East and West (4) (2H)**

Will investigate historical development and spread of Christianity from its origins to about A.D. 600. Content includes early church fathers of east and west, ecumenical councils, early heresies, and development of church doctrine.

**356A The Italian Renaissance (4) (2H)**

*P. Bebb.* Major political, social, economic, and cultural currents of Italian city-states from 1150 to 1550. Focus on Dante, Petrarch, Boccaccio, Bruni, Machiavelli, Guicciardini, Michelangelo, Leonardo da Vinci, etc.

**356B The Northern Renaissance (4) (2H)**

*P. Bebb.* History of Renaissance outside Italy: politics, economics, sociology, and intellectual currents of Germany, France, Spain, Burgundy, and England from 1300 to 1600. Treated thematically, course focuses on Erasmus, More, Ximenes, Reuchlin, Hutten, Bude, etc.

**356C The Reformation (4) (2H)**

*P. Bebb.* Protestant, Catholic, and Counter-Reformations in Europe, showing their relationships to social, political, economic, and religious movements of 15th and 16th centuries. Roles of Luther, Zwingli, Calvin, Cranmer, Erasmus, Loyola, etc.; Protestant and Catholic churches and sects in western and eastern Europe.

**357 Florentine People (4) (2H)**

*P. Bebb.* Major figures in Florence from 1300 to 1600, from Dante to Galileo; concerns are with some originators of modern thought in areas of artistic theory, poetic form, Italian language, political ideas, scientific method, and historical composition.

**358A Early Modern Europe, 1559-1648 (4) (2S)**

*D. Baxter.* Europe from 1559 to 1648. Main political, economic, and social developments in Europe during Age of Spanish Preponderance: Philip II, wars of religion, Richelieu, Thirty Years' War, and ideological struggles.

**358B Early Modern Europe, 1648-1715 (4) (2S)**

*D. Baxter.* Europe from 1648 to 1715. Main political, economic, and social developments in Europe during Age of Louis XIV: French hegemony, rise of balance of power, absolutism.

**358C Early Modern Europe, 1715-1774 (4) (2S)**

*D. Baxter.* Europe from 1715-1774. Main political, economic, and social developments in Europe during Age of Louis XV: despotism, diplomatic revolution, competition for empire, Enlightenment.

**360 Women in European History (4) (2S)**

Women and family, women and work, women and feminism, women and male attitudes, and women and politics are major topics of this introduction to women's history in France, England, Germany, and Russia from Renaissance to present, with emphasis on more recent developments. Since our own culture is an outgrowth of the European, course is indispensable to understanding of women's history in U.S.A. Lectures, discussions, films, slides, and guest speakers.

**362A Europe, 1814-1871 (4) (2S)**

*L. McGeoch.* Europe from Congress of Vienna through Franco-Prussian War, including growth of liberalism and nationalism, revolutions of 1830 and 1848, Industrial Revolution, unification of Italy and Germany, social and intellectual movements.

**362B Europe, 1871-1914 (4) (2S)**

*L. McGeoch.* Development of Austria-Hungary, France, Italy, Germany, Great Britain, and Russia, including imperialism, background of WW I, and social and intellectual movements.

**364A Europe Between World Wars (3) (2S)**

*R. Whealey.* Fascism, Communism, World Depression, and Twenty-Year Armistice between 1919 and 1939.

**364B Contemporary Europe (4) (2S)**

*C. Gustavson.* Cold War, Communist bloc, European integration, decolonization, the Gaullist regime, and problems of present-day Europe.

**365 Spain and Portugal Since 1898 (4) (2S)**

*R. Whealey.* Survey of political, social, economic, diplomatic, and ideological trends.

**366A Modern France in the 19th Century (4) (2S)**

*J. Chastain.* Rise and fall of the Emperor; his impact on France and Europe; monarchist interlude; revolution of 1848 and election of Louis Napoleon; Second Empire, liberal and authoritari-

an; wars and transformation of Europe; fall of Napoleon and Paris Commune; Third Republic.

**366B Modern France in the 20th Century (4) (2S)**

*J. Chastain.* Dynamic and stagnant aspects; nostalgia and rejection of 20th century; impact of 20th century; democracy in France; European and colonial wars; communist movement from Popular Front to Common Program; anti-communism in France; French in a changing world; De Gaulle, his predecessors, and his successors.

**368A Modern Germany in the 19th Century (4) (2S)**

*J. Chastain, C. Gustavson.* Cosmopolitanism and movement to create national German state; rise of capitalism and decline of handicraft; liberation of German peasantry; revolution of 1848 and reaction; blood and iron chancellor; Germany's rise to European predominance; rise of worker movement; German society at turn of century.

**368B Modern Germany in the 20th Century (4) (2S)**

*J. Chastain.* Germany on the eve of WW I; military fiasco and creation of Weimar Republic; Weimar, Berlin, Munich, and Dresden; attempt to forge a democracy; Third Reich and transformation of German society; WW II and Final Solution; Communist Germany and Federal Germany: 2 societies and 2 states since 1945.

**370 History of Byzantine Empire, 324-1453 (4) (2H)**

*W. Kaldis.* Decay of Roman World and emergence of Christian empire, 324-717; medieval Roman Empire, 717-1056; weakening of central administration and apparent revival under Comneni, 1025-1204; Byzantium and neighboring world, 1204-1453; church and state; education and learning; Byzantine art; social, political, and military developments.

**372A Balkans in Early Modern Period, 1453-1804 (4) (2S)**

*W. Kaldis.* Ethnographic structure of Balkan peoples under rule of Ottoman Empire. Ottoman institutions and society; political, social, economic, religious, and cultural developments in Balkans in 15th, 16th, 17th, and 18th centuries.

**372B Balkans in 19th Century, 1804-1878 (4) (2S)**

*W. Kaldis.* Evolution of modern Balkan nationalism and rise of Balkan states. Ottoman dissolution and Balkan revolutionary nationalism; political, social, economic, religious, and intellectual developments; domestic Balkan policy and foreign intervention.

**372C Balkans in 20th Century, 1878 to Present (4) (2S)**

*W. Kaldis.* Historical, cultural, and ethnic background of Balkan peoples. Social, economic, political, and intellectual developments in Balkans and East Europe; communization of southeast European states.

**374A Balance of Power: Napoleon to the Kaiser (4) (2S)**

*L. McGeoch.* Diplomatic history from Congress of Vienna to WW I, including age of Metternich, Italian and German unification, new imperialism, and prewar alliance and alignments.

**374B History of International Diplomacy, 1914-1939 (4) (2S)**

*R. Whealey.* International problems of peace and war, international organization and alliances. Theme: origins of WW II.

**374C History of International Diplomacy, 1939 to Present (4) (2S)**

*R. Whealey.* International problems of peace and war on a world-wide scale since 1939, international organization and alliances. Theme: global balance of power.

**376J Biography: Leaders in 19th Century Europe (4) (2S)**

Open to jrs and srs. *L. McGeoch.* Lives of great and near great as they contributed to determining historical development and change in 19th century Europe. Instructional method based on putting writing skills into practice aimed at improving organization, clarity, and style.

**379 The Development of Modern Science (4) (2S)**

*R. Rauschenberg.* Survey of development of science from Ren-

aissance. History of physical and natural sciences in ages of Copernicus, Newton, Linnaeus, and Darwin.

**382A History of Russia (3) (2S)**

C. Gustavson. Russian origins, Greek and Mongol influences, expansion of Muscovy, Ivan the Terrible, Peter the Great, Catherine the Great, Russia as a great power, and shapes of its 19th century society.

**382B The Communist Revolution (3) (2S)**

C. Gustavson. From tsarist Russia to Soviet Union. Background for revolution, Lenin and Trotsky, Communist Revolution of 1917, civil war and foreign intervention, consolidation of power.

**382C Soviet Union (3) (2S)**

C. Gustavson. Soviet Union since death of Lenin (1924). Stalinism, WW II and expansion, Khrushchev, Brezhnev. Emphasis on internal affairs.

**389 Later Medieval England, 1307-1485 (4) (2H)**

C. Reeves. Investigation of political, social, intellectual, ecclesiastical, and economic aspects of period of ferment and rapid change.

**390A Tudor England (4) (2S)**

R. Harvey. England in 16th century: Tudor absolutism, English Reformation, and major cultural and economic developments of Shakespeare's England

**390B Stuart England (4) (2S)**

R. Harvey. England in 17th century: constitutional crisis of Stuart period, Republican experiment under Cromwell, and major cultural and economic developments.

**391A English History to 1688 (4) (2S)**

R. Rauschenberg. For English and political science majors as well as prelaw students and general students of history. Stresses institutional aspects of medieval England and social, political, and constitutional developments in Tudor and Stuart periods.

**391B English History Since 1688 (4) (2S)**

R. Rauschenberg. For English and political science majors as well as prelaw students and general students of history. Emphasizes cultural and economic developments, growth of British Empire, constitutional and social reforms, and impact of WW I and WW II.

**392A Georgian England (4) (2S)**

R. Rauschenberg. Intensive study of political, social, intellectual, cultural, and economic developments of England in years prior to and during American and French revolutions.

**392B Victorian England (4) (2S)**

R. Rauschenberg, D. Richter. Intensive study of England's history in 19th century, including examination of major political, cultural, and economic trends

**392C 20th Century England (4) (2S)**

R. Rauschenberg. Intensive study of English history in 20th century concentrating on political, cultural, and economic developments

**394A The Medieval English Constitution (4) (2S)**

C. Reeves. English government from Anglo-Saxon times to end of Middle Ages. Growth of machinery of monarchy, central administration, courts and common law. Rise of Parliament

**394B The Modern English Constitution (4) (2S)**

R. Harvey. Emergence of modern English constitution during 16th and 17th centuries, creation and growth of Tudor Constitution, significance of English Reformation for constitution, Tudor Parliament, 'Century of Revolution' (1603-1689) and crisis of Constitution, problems of sovereignty and obligation, constitution today

**395 History of Canada (4) (2S)**

R. Rauschenberg, J. Chastain. Introduction to Canada, study of its exploration, and development under France and England, and its emergence as important modern nation

**397T Honors Tutorial Study, European History (1-5)**

Prereq: admission to Honors Tutorial College. (fall) Covers European history from Renaissance to present

**398T Honors Tutorial Study, European History (1-5)**

Prereq: 397T. (winter) Independent study. European history.

**399T Honors Tutorial Study, European History (1-5)**

Prereq: 398T. (spring) Independent study. European history.

**401A Studies in Colonial American History (4)**

Prereq: 24 hrs and perm. B. Steiner. Literature and source materials of colonial American history. Readings and reports.

**401B Studies of the Era of the American Revolution (4)**

Prereq: 24 hrs and perm. Literature and source materials of American Revolution. Readings and reports.

**405 Studies in the Foundation of the American Republic, 1783-1819 (4)**

Prereq: 24 hrs and perm. Literature and source materials of early national period of American history. Readings and reports.

**407 Studies of the Era of Sectional Controversy: 1819-1850 (4)**

Prereq: 24 hrs and perm. Literature and source materials of era of sectional controversy, 1819-1850. Readings and reports.

**409 Studies in the Era of the Foundations of Modern America, 1850-1901 (4)**

Prereq: 24 hrs and perm. Literature and source materials for period 1850-1901 in United States history. Readings and reports.

**411 Studies in the History of the United States in Recent Times (4)**

Prereq: 24 hrs and perm. A. Hamby, G. Lobdell. Literature and source materials of recent United States history. Readings and reports.

**415 Studies in the Social, Cultural and Intellectual History of the United States (4)**

R. Daniel, C. Alexander. Selected topics.

**417 Studies in the History of American Foreign Relations (4)**

Prereq: 24 hrs and perm. Literature and source materials of American foreign relations. Readings and reports.

**421 Studies in Regional History (4)**

Prereq: 24 hrs and perm. Literature and source materials of United States regional history. Readings and reports.

**423 Studies in Latin American History, 1750-1880 (4)**

Prereq: perm. Literature and source materials of Latin American history, 1750-1880. Readings and reports.

**427 Studies in Recent Latin American History (4)**

Prereq: perm. Literature and source materials of recent Latin American history. Readings and reports.

**429 Studies in the History of Ancient Greece (4, max 8)**

Prereq: 24 hrs and perm. D. Richter. Literature and source material of ancient Greek civilization. Readings and research paper. Themes vary from qtr to qtr. May be repeated for credit.

**435 Studies in Middle East History (4)**

Prereq: 24 hrs and perm. G. Doxsee. Literature and source materials on Middle East since 1914. Readings and reports.

**441 Studies in African History (4)**

Prereq: 24 hrs and perm. A. Booth, G. Doxsee, S. Miers. Literature and source materials of African history. Readings and reports

**445 Studies in the History of Southeast Asia (4)**

Prereq: two 300- or 400-level courses in social sciences or humanities dealing with Asia. W. Frederick. Literature of South-east Asian history and culture generally, with particular emphasis on selected developments in 19th and 20th centuries. Readings and reports

**449 Studies in the History of East Asia in Modern Times (4)**

Prereq: two 300- or 400-level courses in social sciences or humanities dealing with Asia. D. Jordan. Historical literature

relating to process of modernization of China and Japan from 1860s to 1960s. Readings and reports.

**461 Proseminar in French Revolution (4)**

Prereq: 24 hrs and perm. C. Gustavson. Oral reports and class discussion. Myth and reality of revolution. Study of ideas, episodes, and individuals in the French Revolution.

**463 Studies in 19th Century Europe (4)**

Prereq: 24 hrs and perm. L. McGeoch. Literature and source material of 19th century Europe. Readings and reports.

**467 Studies in Modern France (4)**

Prereq: 24 hrs and perm. J. Chastain. Literature and source material of modern France. Readings and reports.

**483 Studies in Russian and Soviet History (4)**

Prereq: 24 hrs and perm. C. Gustavson. Literature and source material of Russian and Soviet history. Readings and reports.

**491 Studies in Early Modern English History (4)**

Prereq: 24 hrs plus perm. R. Harvey. Studies in early modern English history from multi-disciplinary perspectives.

**493 Studies in British History Since 1714 (4)**

Prereq: 24 hrs and perm. R. Rauschenberg. Literature and source material of British history since 1714. Readings and reports.

**496 Quantitative Methods in History (4)**

P. Field. Introduction to descriptive and inductive statistical techniques used in historical research and analysis of current literature employing such techniques. Instruction in use of computer.

**497T Advanced Honors Tutorial Study (1-5)**

Prereq: 299T, 399T. (fall) Independent study, advanced level.

**498 Problems in History (1-5, max 9)**

Prereq: 24 hrs, perm. Intensive individual work either in research or individual systematic reading along lines of student's special interest and under supervision of staff member.

**498T Advanced Honors Tutorial Study (1-5)**

Prereq: 497T. (winter) Independent study, advanced level.

**499 Honors Studies of Selected Historical Topics (1-5, max 15)**

Prereq: perm. Study, reading, research, and writing on selected topic; intended for students who plan to graduate with honors in history. Arrangements should be made during jr yr.

**499T Advanced Honors Tutorial Study (1-5)**

Prereq: 498T. (spring) Independent study, advanced level.

## HOME ECONOMICS

### General Home Economics

#### Consumer Service and Education

Consumer Service

Education

#### Human Development and Family Ecology

#### Human Environment and Design

Interior Design

Textiles and Clothing

#### Human Nutrition and Food Science

## General Home Economics

**101 Professional Awareness (2)**

(2H)

Personal and professional awareness with emphasis on home

economics career opportunities. Specialists in each field assist staff.

**459 Home Economics Seminar, Workshop and Short Course in International Service (2-4)**

Prereq: jr rank, perm. Special seminar or workshop for international students or for home economics majors who want to prepare for international service. Lec, lab, and field trips.

**479A Workshop in Home Economics (2-6)**

Prereq: teaching experience or perm. Special workshops for in-service training of home economics teachers. 479A — home economics education.

**479B Workshop in Home Economics (2-6)**

Prereq: work experience or perm. Continuation of series beginning with 479A. See 479A for general description. 479B — clothing and textiles.

**479C Workshop in Home Economics (2-6)**

Prereq: work experience or perm. Continuation of series beginning with 479A. See 479A for general description. 479C — foods and nutrition.

**479D Workshop in Home Economics (2-6)**

Prereq: work experience or perm. Continuation of series beginning with 479A. See 479A for general description. 479D — child development.

**479E Workshop in Home Economics (2-6)**

Prereq: work experience or perm. Continuation of series beginning with 479A. See 479A for general description. 479E — consumer economics.

**479F Workshop in Home Economics (2-6)**

Prereq: work experience or perm. Continuation of series beginning with 479A. See 479A for general description. 479F — home furnishings.

**479G Workshop in Home Economics (2-6)**

Prereq: work experience or perm. Continuation of series beginning with 479A. See 479A for general description. 479G — home management.

**479H Workshop in Home Economics (2-6)**

Prereq: work experience or perm. Continuation of series beginning with 479A. See 479A for general description. 479H — household equipment.

**479I Workshop in Home Economics (2-6)**

Prereq: work experience or perm. Continuation of series beginning with 479A. See 479A for general description. 479I — school lunch management.

**479K Workshop in Home Economics (2-6)**

Prereq: teaching experience or perm. Continuation of series beginning with 479A. See 479A for general description. 479J — family life education.

**490A Independent Study (2-5, max 15)**

Prereq: perm. Independent study, advanced level under direction of faculty member in area of specialization. 490A — consumer service and education.

**490B Independent Study (2-5, max 15)**

Prereq: perm. Continuation of series beginning with 490A. See 490A for general description. 490B — human development and family ecology.

**490C Independent Study (2-5, max 15)**

Prereq: perm. Continuation of series beginning with 490A. See 490A for general description. 490C — human environment and design.

**490D Independent Study (2-5, max 15)**

Prereq: perm. Continuation of series beginning with 490A. See 490A for general description. 490D — human nutrition and food science.

**491A Seminar or Short Course in Home Economics (2-4)**

Prereq: perm of dept chairman. Recent developments in any of following areas. 491A — child development and family life.

**491B Seminar or Short Course in Home Economics (2-4)**

Prereq: perm of dept chairman. Continuation of series beginning with 491A. See 491A for general description. 491B — foods and nutrition.

**491C Seminar or Short Course in Home Economics (2-4)**

Prereq: perm of dept chairman. Continuation of series beginning with 491A. See 491A for general description. 491C — home economics education.

**491D Seminar or Short Course in Home Economics (2-4)**

Prereq: perm of dept chairman. Continuation of series beginning with 491A. See 491A for general description. 491D — housing and management.

**491E Seminar or Short Course in Home Economics (2-4)**

Prereq: perm of dept chairman. Continuation of series beginning with 491A. See 491A for general description. 491E — textiles and clothing.

**491F Seminar or Short Course in Home Economics (2-4)**

Prereq: perm of dept chairman. Continuation of series beginning with 491A. See 491A for general description. 491F — research.

## Consumer Service and Education

### Consumer Service

**390 Family Consumer Economics (3)**

*J. Varner*. Management of personal and family financial problems. Emphasis on the consumer's role in the economy.

**391 Equipment (2-4)**

Prereq: 390. Selection and use of household equipment including materials, construction, operation, and care. 4 lec, 2 lab.

**395 Home Management (3)**

Prereq: soph rank. *J. Varner*. Decision-making applied to use of family resources with purpose of creating family environment in which optimum human development will occur. 3 lec.

**396 Home Management Laboratory (4)**

Prereq: soph rank. HECE 395, HEFN 120, perm *J. Varner*. Principles of decision-making and management in group living situation. Home Management House experience provided.

**400 Senior Seminar (1-3)**

Prereq: concurrent with 499B. *S. Slater*. Provides opportunity to share ideas and assess oneself in relation to personal and professional growth before exiting program as professional home economist.

**439 Studies in Household Equipment and/or Management (2-4, max 6)**

Prereq: 391, 395. Provides opportunity for student to pursue study in selected area of home management and/or household equipment under supervision.

**492 Household Equipment Techniques (3)**

Prereq: 391. *J. Matthews*. Critical analysis of home equipment relative to durability and effective use. 1 lec, 4 lab.

**499A Field Work in Home Economics — Extension and/or Business (5-12)**

Prereq: 18 hrs, sr rank, perm. On the job training through cooperation with business organizations, department stores, radio and television stations, and Home Economics Extension Department of Ohio State University.

**499B Field Work in Home Economics — Job Training (5-12)**

On the job training in area of specialization. Taken concurrently with HECE 400.

## Education

**299 Sophomore Practicum — Professional Assessment (2-5)**

Prereq: soph rank, perm. (fall) *L. Cibrowski*. Provides professional experience for sophs who have declared majors in consumer service and education. Lab experience, seminar sessions, and performance assessment provide opportunity to assess professional competence at this level.

**340 Teaching of Home Economics (2-4)**

Prereq: 399, jr rank. (spring) *L. Cibrowski*. Home economics programs at jr and sr high school level. Special emphasis given to vocational education, curriculum development, and evaluation procedures.

**341 Job Training Methods (4)**

Prereq: 24 hrs of home economics. *L. Cibrowski*. Exploration and development of personal and professional competencies necessary for teaching in vocational home economics job training programs.

**399 Junior Practicum — Professional Development (2-5)**

Prereq: 299, jr rank, perm. (winter) *L. Cibrowski*. Lab experiences with school and community agencies. Competency assessment at jr level.

**441 Evaluation in Home Economics (3)**

Prereq: 24 hrs of home economics. Evaluation and assessment methods and techniques in relation to process and products in home economics programs and professions.

**442 Home Economics Education Practicum (2-4, max 8)**

Prereq: sr rank. *S. Slater*. Concentrated study in area of interest such as adult programs, special education programs, job training experience; work with handicapped people.

**443 Vocational Home Economics (4)**

Prereq: 340 or teaching experience in home economics. (summer) *S. Slater*. History and philosophy of vocational home economics. Contemporary trends, methods, sources of materials, and evaluation. Observation arranged.

**444 Home Economics in Adult Education (4)**

Prereq: 26 hrs. (winter) *J. Varner*. Organization procedures, curriculum materials, and methods of conducting adult education groups in home economics.

**445 Current Developments in Home Economics Education (4)**

Prereq: 340 or 443. *S. Slater*. Current trends and developments in home economics education programs at secondary and post high school levels in relation to curricular developments, evaluation procedures, legislation affecting program, and research.

**450 Problems in Teaching Home Economics (2-4, max 6)**

Prereq: 26 hrs. *S. Slater*. Individual problems in teaching.

## Human Development and Family Ecology

**160 Introduction to Child Development (4) (2S)**

Fundamental patterns of development and behavior during prenatal period through early childhood. Individualized, competency based instruction. Directed observations of children in child care setting, infants in infant lab, and preschoolers in selected adult child community activities. 4 lec, 1 lab. No credit awarded if EDE 200 or PSY 173 has been taken.

**299 Sophomore Practicum — Professional Assessment (5)**

Prereq: soph rank, perm. Provides professional experience for sophs who have declared majors in human development and family ecology. Seminar sessions and performance assessment



provide opportunity to assess professional competence at this level.

### 360 Human Sexuality (3) (2S)

*E. Stricklin.* Exploration of effect of one's own human sexuality on aspects of one's ability to form relationships which are integrative, creative, and recreative. Emphasis is placed on realization of one's own dynamic potential in wholeness of life pattern and in relationships, in light of scientific research.

### 361 Principles of Preschool Guidance (4)

Prereq: 160 or equiv, perm. *J. Nehls.* Application of theories and principles of preschool guidance by directed observation of adult-child interactions, and supervised participation in early childhood education programs. 2 lec, 3 lab.

### 363 Creative Experiences with Preschool Children (4)

Prereq: 361. *Staff.* Selection, preparation, presentation, and evaluation of activities and materials in art, music, language, psychosocial, and physical development for early childhood programs. 3 lec, 3 lab.

### 364 Premath and Science with Young Children (4)

Prereq: 361, BOT 101 or ZOOL 101. *Staff.* Examples of early childhood programs, primary elements and issues that differentiate them. Selection, preparation, presentation, and evaluation of premath and science activities and materials. 3 lec, 3 lab.

### 365 Infant Education (4)

Prereq: HECF 160, 361. *J. Nehls.* Knowledge of ways in which children from birth to 3 yrs learn; opportunity to structure environment to foster social, emotional, cognitive, and physical development of infant, as well as understanding of issues and trends in infant education.

### 370 Family Living (3)

*E. Stricklin.* Person-centered analysis of basic human relationship processes leading to successful modern American marriage and family experience. Special discussion and analysis of problems in beginning family stage. Not open to fr. 3 lec.

### 371 Family Development (3)

Prereq: 5 hr general psychology. *E. Stricklin.* Synthesis of the essential concepts useful in comprehending families in the light of the developmental concept for family analysis from wedding through the subsequent stages of the family life cycle. 3 lec.

### 399 Junior Practicum – Professional Development (5)

Prereq: jr rank, perm. Provides student with practical field-based experience in professional areas. Competency assessment made at jr level.

### 400 Senior Seminar (3)

Prereq: concurrent with 499 or 464. Provides opportunity for comprehensive assessment in relation to personal and professional growth prior to exiting program as professional in human development and family ecology.

### 462A Pluralistic Life Styles (2)

Prereq: jr or sr rank or perm. *E. Stricklin.* Analysis of emerging pluralistic marriage and family life patterns in American society.

### 462B Parenthood (2)

Prereq: jr or sr rank, perm. *Staff.* Analysis of dynamics of parenthood.

### 462C Middle Childhood (2)

Prereq: jr or sr rank, perm. *Staff.* Analysis of developmental tasks of middle childhood years as they reflect and influence family guidance and transmission of values.

### 462D The One-Parent Family (2)

Prereq: jr or sr rank or perm. *E. Stricklin.* Analysis of dynamics of one-parent family in light of its needs, challenges, and distinctive characteristics.

### 462E Youth Identity Crisis (2)

Prereq: jr or sr rank, perm. *Staff.* Analysis of identity crisis in terms of its psychosocial aspects of adolescence.

### 462F The Aged Family (2)

Prereq: jr or sr rank or perm. *E. Stricklin.* Synthesis of multiple dimensions of the aged family.

### 463 Preschool Administration (5)

Prereq: 363 or 364. (spring) *J. Nehls.* History, philosophy, and objectives of preschool education including current trends. Problems in organizing and administering preschools, play groups, and Head Start programs with emphasis on housing, staff, schedules, and financing. Field trips to selected programs. 4 lec.

### 464 Early Childhood Practicum (6-12)

Prereq: 363 or 364. Lab experience in planning, guiding, supervising, and evaluating preschool children's growth and behavior in all phases of early childhood education programs. 1 lec, 20 lab.

### 465 Parent Education (4)

Prereq: HECF 160. Philosophy, techniques, materials, and methods used in working with parents. Opportunities for observation and participation with parent groups, parent conferences, and home visitations.

### 467 Theories of Child Development (4)

Prereq: jr or sr rank, perm. *Staff.* Review of theories of child development with synthesis approach for student in early childhood education programs.

### 471 Family Life Education (4)

Prereq: perm. (winter) *E. Stricklin.* History, philosophy, and objectives of family life education, including current trends. Selected fundamental educational problems explored. Examination of various dimensions of teacher's role and critical appraisal of student's professional competency to teach classes in family life education.

### 472 Special Studies in Human Development (2-5)

Prereq: HECF 462/562. *J. Nehls.* In-depth study in selected area.

### 479 Special Studies in Family Ecology (2-5)

Prereq: HECF 462/562. *E. Stricklin.* In-depth study in selected area.

### 499 Field Experience in Human Development and Family Ecology (12)

Prereq: 18 hrs, sr rank, perm. On-the-job training through cooperation with social, welfare or community agencies, hospitals, early childhood programs, and Merrill-Palmer Institute.

## Human Environment and Design

### Interior Design

#### 180 Furnishing Today's Home (3)

*E. Langford, J. Matthews.* Practical and esthetic study of home furnishings, including basic art qualities, studies in color and design, materials used in furnishings, selection, and arrangement of furniture and accessories.

#### 280 Interior Design Studio I (5)

Prereq: EG 105, HEID 180. Space relationships, color for interiors, and ergonomics. Lab experiences include color, shadow, and texture rendering.

#### 281 Interior Design Studio II (5)

Planning, designing, and specification of materials and furnishings for residential spaces. Lab experiences include executing plans, elevations, sample boards, cost estimates, rationales, and oral presentations.

#### 282 Interior Design Studio III (5)

Design of multi-housing with special emphasis on designing for people with special needs. Includes planning interiors for elderly and persons with various handicaps. Includes related readings.

#### 299 Sophomore Practicum – Professional Assessment (2)

Prereq: 282. Study of field of interior design concentrating on



career opportunities and professional organizations. Assessment of student's competencies and portfolio review. Recommendations will be made by faculty if student will be allowed to continue in interior design program or not.

### **384 Family Housing (3)**

Prereq: majors, EG 105, 180, and art. (fall, winter) *E. Langford*. Housing needs of family and factors influencing housing. Evaluation and designing of floor plans for effective use of space in home.

### **385 Home Furnishings Workshop (4)**

Prereq: 113, 180 or 6 hrs art, perm. *E. Langford*. Lab problems in advanced techniques in home furnishings, including upholstering, refinishing furniture.

### **399 Junior Practicum –**

#### **Professional Development (2-5)**

Prereq: jr rank, perm. Professional development and assessment through interviews with personnel in field, field trips, and investigation of business practices and procedures.

### **400 Senior Seminar –**

#### **Professional Evaluation (1-3)**

Prereq: concurrently with 499. Provides opportunity for students to demonstrate personal growth by sharing experiences in verbal and written form to staff and fellow students.

### **480 History of Furniture (3-4)**

Prereq: 180 and art or design, perm. (fall, winter) *E. Langford*. Qualities and styles of furniture and furnishings. Emphasis on periods of the past and their esthetic influence on the present.

### **481 Contemporary Design in Furnishings (3)**

Prereq: 480, 6 hrs of art or perm. (spring) *E. Langford*. Furnishings and interiors of present era; factors that have influenced development of contemporary design; important designers and their work.

### **482 Design in Home Accessories (3)**

Prereq: 480, 6 hrs of art or perm. (winter) Investigation of development of design in accessories of glass, ceramics, textiles, Oriental rugs, metals such as silver and pewter. Use of accessories in home and in displays.

### **483 Advanced Interior Design Studio II (5)**

Prereq: HEID 282. (winter) Investigation, design, and specification of materials and furnishings for offices. Office design will range from single-occupancy office, to large multi-purpose office space, including concept of office landscaping. Lab experiences include executing plans, elevations, perspectives, cost estimates, rationales, and oral presentations.

### **484 Advanced Interior Design Studio I (5)**

Prereq: HEID 483 (fall) Investigation, design, and specification of materials and furnishings for motels and restaurants. Experiences include executing plans, elevations, and perspectives, cost estimates, rationales, and oral presentations.

### **485 Advanced Interior Design Studio III (5)**

Prereq: HEID 484 (spring) Investigation, design, and specification of materials and furnishings for retailing interiors. Lab experiences include executing plans, elevations, perspectives, cost estimates, rationales, and oral presentations.

### **499 Field Work – Interior Design (5-12)**

Prereq: 18 hrs, sr rank, perm. On-the-job training through cooperation with residential and contract firms for interior design majors. Concurrently with HEID 400

thought, creative expression, and construction problems. 2 lec, 6 lab.

### **299 Sophomore Practicum –**

#### **Professional Assessment (2-5)**

Prereq: HEG 101, 117. *E. Goldsberry*. In-depth study of field of textiles and clothing, concentrating on career responsibilities and opportunities, language of fashion and importance and technique of developing professional portfolio. Mini-experiences related to chosen option included which will give students opportunity to assess their capabilities for meeting entry-level competencies as professionals.

### **312 Studies in Clothing and Textiles (2-4, max 8)**

Prereq: perm. Selected topic in clothing and textiles.

### **313 Design Analysis: Experimental (2-4)**

Prereq: C or better in HETC 213. *J. Izard*. Problems and construction techniques in handling fashion fabrics. Creative expression through experimenting with fashion fabrics.

### **315 Elementary Textiles (4)**

Prereq: not open to fr. *M. Doxsee*. Emphasis on textile yarns, fabrics, and finishes with reference to production, processing use, and care. 4 lec, 1 lab.

### **316 Design Analysis: Tailoring (4)**

Prereq: C or better in HETC 213. *J. Izard*. Advanced problems with emphasis on couturier tailoring techniques related to apparel construction. 2 lec, 4 lab.

### **318 Fashion Merchandising – Promotion (4)**

Prereq: HETC 213, 315, JOUR 250 or perm. *E. Goldsberry*. Factors influencing planning, promoting, presenting, and selling of fashion goods. Study of store image development, layout, and visual presentation techniques. Development of marketing problems including alternative promotional techniques and cost control. 4 lec.

### **399 Junior Practicum –**

#### **Professional Development (2-5)**

Prereq: HETC 299, jr rank, perm. *E. Goldsberry*. Professional development and assessment through interviews with personnel in field, field trips, and mini-professional experiences.

### **400 Senior Seminar –**

#### **Professional Evaluation (1-3)**

Prereq: HETC 399, concurrently with 499. *E. Goldsberry*. Provides opportunity for students to demonstrate personal and professional growth by sharing experiences in verbal and written form to staff and fellow students.

### **405A History of Costume (4)**

(2H)

*M. Doxsee*. Costume through ages as reflection of historical period and source for present-day design.

### **405B History of Textiles (2)**

*M. Doxsee*. Textiles through ages as reflective of historical period and source for present-day design.

### **407 Textile and Fashion Industry (4)**

Prereq: HETC 315, JOUR 250. *M. Doxsee*. Economic factors influencing textile and fashion industry treated in depth. 4 lec.

### **415 Design Analysis: Flat Pattern (4)**

Prereq: HETC 213, 315 or perm. *E. Goldsberry*. Creative apparel design and interpretation with emphasis on flat pattern manipulation.

### **416 Design Analysis: Draping (4)**

Prereq: HETC 213, 313, 415, or perm. *E. Goldsberry*. Designing of apparel using draping techniques. Emphasis on fabric as medium rather than pattern development in design process.

### **417 Fashion Merchandising – Management (3)**

Prereq: jr rank, HETC 315, MGT 300, CS 150. *E. Goldsberry*. Marketing and management principles related to buying and controlling of merchandise. Emphasis on organizational structure, personnel management, planning, buying, and controlling merchandise assortments. Retail mathematics problems included.

### **418 Quality Control (4)**

Prereq: jr rank, HETC 315 or perm. *M. Doxsee*. Principles,

## Textiles and Clothing

### **117 Textiles and Dress and the Environment (3)**

Prereq: PSY 101 or SOC 101 or concurrently *J. Izard*. Contemporary uses and roles of textiles and clothing as affected by economics, social, and psychological forces seen in historic perspective.

### **213 Design Analysis: Theory and Principles (5)**

Prereq: 3 qtr fr with perm, HETC 117. *J. Izard*. Fundamental principles as applied to understanding use and fit of commercial pattern, and apparel construction. Emphasis on scientific

techniques, and standard testing methods of quality control for textiles, clothing, and interior design. Laboratory sessions will emphasize standard textile testing procedures and research methods. Federal and state laws and codes designed to protect consumer also discussed.

#### 419 Studies in Textile Testing (3)

Prereq: perm. *M. Doxsee*. Individual research and laboratory testing of problems in advanced textiles.

#### 420 Fashion Study Tour (2-3)

Prereq: jr rank or perm. *E. Goldsberry*. (spring break) Directed study problems related to textile and apparel industry in conjunction with on-site tours of textile and apparel market centers.

#### 499 Field Experience – Textiles and Clothing (4-12)

Prereq: 18 hrs, sr rank and perm. *E. Goldsberry*. On-the-job experience through cooperation with industry and/or retail establishments. For fashion merchandising majors.

## Human Nutrition and Food Science

#### 120 Meal Management (3)

*F. Frey*. Principles of food preparation and nutrition emphasizing use of time, energy, and resources in management of meals. Government regulations controlling food supply. 2 lec, 2 lab.

#### 128 Introduction to Nutrition (4) (2A)

*B. Sullivan, F. Frey*. Nutrients, their food sources and functions in body, application to planning adequate diet throughout life cycle.

#### 222 Food Science and Principles (4)

(winter) Scientific principles applied to selection, storage and preparation of foods. 3 lec, 2 lab.

#### 232 Infant and Child Nutrition (4)

*B. Sullivan*. (D) Dietary factors related to nutritional status in pregnancy, infancy, preschool, and school-age children. Contribution of nutrition education and school lunch program in school curriculum. 4 lec.

#### 299 Sophomore Practicum – Professional Assessment (2-5)

Prereq: 120, 128, 222, HEG 101, Eng Composition, INCO 101/103, CHEM 121, 122. *F. Frey*. (spring) Professional experiences for sophs who have declared majors in area of human nutrition and food science and to provide opportunity for assessment of each student's competencies in area at this level.

#### 321 Creative Cookery and Food Styling (3)

Prereq: 120, 222, and art. *F. Frey*. (fall) Intensive study of elements of color, design, flavor and texture of food products and styles of cookery and presentation. 1 lec, 4 lab.

#### 325 Food and the Consumer (3)

Prereq: Econ 101/301. (spring, A) Role of government and consumer organizations in consumer protection and consumer's responsibilities in obtaining and consuming safe food. Factors influencing food supply.

#### 334 Quantity Food Production (4)

Prereq: 128, 222. (fall) Food preparation principles applied to large quantity food production and service in institutions. Experience in residence halls. 2 lec, 4 lab.

#### 399 Junior Practicum – Professional Development (2-5)

Prereq: foods and nutrition major, sr rank, perm. *B. Sullivan*. (fall) Practicum in human nutrition and food science. Work with community agency, utility company, institutional food service, or other specialized food-related company in immediate area.

#### 400 Senior Seminar (1-3)

Prereq: foods and nutrition major, sr rank, perm. Provides opportunity for students to demonstrate their personal and professional growth by sharing experiences in verbal and written

form with staff and fellow students. Taken concurrently or following HEFN 499 — Field Experience.

#### 422 Experimental Foods (4)

Prereq: 222 or equiv and organic chemistry. (spring) Factors which affect results of different methods used in food preparation. Research techniques using subjective and objective evaluation of products. 3 lec, 2 lab.

#### 423 Food Preservation (4)

Prereq: 128, 222, microbiology. (winter) *B. Sullivan*. Principles of food preservation, factors affecting palatability and nutritive value of foods, comparative studies of products. 2 lec, 2 lab.

#### 425 Teaching of Foods and Nutrition (3)

Prereq: sr rank (D). Organization of materials and methods of presenting principles of food preparation and nutrition. For majors in foods and nutrition. 1 lec, 4 lab.

#### 426 World View of Nutrition (3)

Prereq: 128, jr or sr rank. (winter) *B. Sullivan*. Survey of world food situation with consideration of environmental, cultural, governmental, and economic factors that relate to food production and consumption. Evaluation of these patterns in meeting dietary needs.

#### 427 Studies in Foods and Nutrition (2-4)

Prereq: perm. Directed studies in some aspect of foods and/or nutrition; topics selected by students with approval of staff member, frequent conferences.

#### 428 Advanced Nutrition (4)

Prereq: 128, biochemistry and human physiology. (fall) *B. Sullivan*. Biochemical and physiological processes in nourishment of body. Determination of nutrient needs and evaluation of nutritional status. Animal feeding experiments. 4 lec, lab arranged.

#### 429 Community Nutrition (3)

Prereq: 128, jr or sr rank. (spring) *B. Sullivan*. Assessment of community nutrition needs. Survey of agencies and programs providing services. Role of nutritionist. Methods and resources for nutrition education. Legislation.

#### 430 Therapeutic Nutrition (4)

Prereq: 428, biochemistry and human physiology. *B. Sullivan*. (winter) Use of dietary modification in prevention and treatment of disease. Nutritional assessment. Problems in nutritional care.

#### 431 Studies of Science of Nutrition (3-4, max 8)

Prereq: 428, biochemistry and human physiology. Nutrition as related to physiological and metabolic processes. Individual research project.

#### 437 Food Service Systems I (4)

Prereq: HEFN 299, 334, MGT 300. (fall) Introduction to tools and functions of management in food service with emphasis on organization structure, menu planning, staffing, work methods, human relations skills, sanitation, and safety. 4 lec, lab arranged.

#### 438 Food Service Systems II (4)

Prereq: HEFN 334, 499. (winter) Institutional food purchasing, kitchen layout design, equipment selection, and cost control. 4 lec, lab arranged.

#### 499 Field Experience – Foods and Nutrition (5-12)

Prereq: sr rank, perm. On-the-job training through cooperation with hospitals, community agencies, business organizations, and media.

## HUMAN SERVICES TECHNOLOGY

The following courses for the A.A.S. program in human services technology are available only on the Chillicothe campus.

#### 101 Principles of Behavior (5)

Discussion of basic principles of animal and human behavior

with emphasis on operant and respondent conditioning. Laboratory designed to demonstrate these principles.

### **102 Introduction to Human Services Technology (3)**

Comprehensive introduction to knowledge and skills required for successful human services work. Coverage includes history and issues in human services, philosophical models, methods of service delivery, professional roles, and others.

### **110 Human Services Agencies (3)**

Prereq: 102 or perm. Survey of functions of various human service agencies and programs. Students will interact with professional staff from local programs and be familiarized with services, goals, and organizational structure of each agency or program.

### **125 Psychological Assessment (4)**

Prereq: PSY 101. Introduction to various assessment techniques used in human services. Includes interviewing and case history development in addition to psychological testing. Students will learn values and limitations of different assessment approaches. Ethical considerations also discussed.

### **150 Behavior Management I (3)**

Prereq: 101. Examines application of behavioral principles and techniques to various human problems. Emphasis on learning to objectively describe, measure, and analyze behavioral data. Ethical issues in behavior management discussed.

### **151 Behavior Management II (4)**

Prereq: 150. Continuation of 150, exploring additional applications of behavioral techniques in both individual and group settings. Practice provided in contingency contracting and designing token economy.

### **152 Behavior Management III (4)**

Prereq: 151. Continuation of 151 with emphasis on specific behavioral techniques such as progressive relaxation training and biofeedback. Discussion of cognitive methods of behavior change. Course also attempts to integrate use of behavioral techniques with other intervention approaches.

### **170 Group Dynamics I (4)**

Prereq: 102 and perm. Explores theories and issues current in group dynamics. Provides exercises to demonstrate applications of various theoretical positions. Also discusses methods for implementing groups and outcome evaluation.

### **171 Group Dynamics II (3)**

Prereq: 170. Continuation of 170 with emphasis on participation in variety of group exercises. Students involved both as participants and group leaders. Critical feedback and evaluation provided through video-taped group sessions.

### **200 Personal Management (3)**

Prereq: 102. Examines management of one's own behavior and positive relationship with others in social context. Emphasis on empathy and understanding through literature and/or other modes of communication.

### **210 Practicum I (2)**

Prereq: 110 and perm. Students will participate in 150 hrs of supervised field experience at local agency or institution. Provides opportunity to gain practical training and experience under guidance and supervision of professional agency staff.

### **211 Practicum Seminar I (1)**

Opportunity for group discussion of special topics and problems related to student practicum experiences and professional development. Enrollment concurrent with HST 210.

### **220 Practicum II (2)**

Prereq: 171 and 210. Provides additional opportunities to develop helping skills and to practice techniques learned in class. Students may opt for more intensive experiences at same agency as 210 or select another from those participating with HST program. 150 hrs required.

### **222 Practicum Seminar II (1)**

Opportunity for group discussion of special topics and problems related to student practicum experiences and professional development. Enrollment concurrent with HST 220.

### **250 Practicum III (2)**

Prereq: 220. Emphasis of final 150-hr practicum on continued skill development and broadening of experience. Students who have completed 210 and 220 at same agency expected to select another for final practicum.

### **255 Practicum Seminar III (1)**

Opportunity for group discussion of special topics and problems related to student practicum experiences and professional development. Enrollment concurrent with HST 250.

### **275 Community Resources (3)**

Prereq: perm. Topics include sources of funding, organizational structures, funding review process, and others. Emphasis given to actual preparation and writing of intra- and extra-organizational proposals and grants.

### **290 Special Problems (1-10, repeatable)**

Prereq: perm. Provides opportunity for students to explore topics of interest on individual basis, or in structured courses developed as common interests arise. Additionally, credits may be awarded for advanced practicum experiences.

## **INDONESIAN**

See Foreign Languages and Literatures.

## **INDUSTRIAL HYGIENE**

(Major Code #3309)

The industrial hygiene program prepares individuals devoted to the recognition, evaluation, and control of those environmental factors or hazards arising in or from the workplace which may cause sickness, impaired health and well-being, or significant discomfort among workers.

Industrial hygienists are health professionals concerned with how noise, dust, vapors, and other hazards common to the workplace affect workers' health.

Graduates of the program may be employed directly by private laboratories, industrial firms, insurance companies, or governmental agencies or they may enter graduate programs in industrial hygiene, public health, or other health related disciplines.

The curriculum is designed to provide a broad-based program within the College of Arts and Sciences and College of Engineering leading to a bachelor of science degree.

The student must complete the Arts and Sciences degree requirements for the bachelor of science degree and the industrial hygiene program requirements, consisting of IH 200, 400, and 401; CHEM 141, 142, 143, 301, 302, 303, 330, 351, 476, 483, 485, and 489; ISE 231, 304, 333, 336, 422, 448 and 451; ET 331; EG 101; INCO 103; ME 400; ZOOL 150, 300 and 345; MATH 263A, B, and C; MICRO 411 and 418; PHYS 251, 252, and 253; ENG 172 and 305; ECON 101; MGT 200; BLAW 370, and PSY 101.

The math, physics, English, economics, and psychology courses will apply to the Arts and Sciences degree requirements.

Students interested in the program should consult the Director, Industrial Hygiene Program, Chemistry Department, for advising and schedule planning.

### **200 Introduction to Industrial Hygiene and Occupational Safety and Health (1)**

Prereq: industrial hygiene major or perm. (spring) Introduction to occupational safety and health and industrial hygiene including historical developments, health and safety program concepts, social and legislative requirements, professional relationships, and general introduction to concepts of recognition, evaluation, and control of exposures. 1 lec.

**400 Industrial Hygiene Air Sampling (3)**

Prereq: jr rank in industrial hygiene or perm. (spring) Lectures and laboratories to introduce field sampling and laboratory instrumentation and analytical methods common to industrial hygiene. Students required to interpret readings, analyze samples, and prepare appropriate reports. 2 lec, 3 lab.

**401 Hazardous and Flammable Materials for Industrial Hygiene (3)**

Prereq: sr rank in industrial hygiene or perm. (spring) Lectures on gases, vapors, dusts, liquids, and solids and their physical and chemical characteristics; Emphasis on sampling, evaluation, and control methods. Technical reports required, including design requirements as specified by regulatory agencies. 3 lec.

## INDUSTRIAL TECHNOLOGY

The requirements for an industrial arts major in the program leading to a B.S. in education degree are outlined in the *College of Education* section of the catalog. The program outline for a B.S. in industrial technology degree is described in the *College of Engineering and Technology* section. A teaching option is available under industrial technology.

**80 Driver Education (2)**

For novice drivers. Credit and points not counted toward degree. 2 lec, 2 lab. Fee required; see qtr Schedule of Classes.

**101 Engineering Drawing (3) (2A)**

Beginning course for students of engineering and technology and related fields; basic techniques, processes and standards, multiview drawing, freehand drafting, fundamentals of dimensioning, section views and sectional assemblies. 5 lec.

**102 Engineering Drawing (3)**

Prereq: 101. Basic engineering drawing: pictorial drawing, free-hand drawing, developments and intersections, dimensioning, working drawings, elementary design problems. 5 lec.

**104 Architectural Drawing (5)**

Provides students an opportunity to learn basic techniques used in architectural drawing such as use of instruments, orthographic projection, floor plans, elevations, sections.

**105 Architectural Drawing (5)**

Prereq: 104 or perm. Continuation of 104, providing students with an opportunity to learn pictorial drawing techniques such as isometric drawing, perspective drawing, and rendering techniques.

**109 Crafts (2)**

Working with leather, art metal, enameling, and plastics. Open to any student. 4 lab.

**115 Metal Fabrication (4)**

Production practice, including cutting, forming, and joining of metals. 1 lec, 6 lab.

**117 Engineering Metals (3)**

Prereq: engineering major. Practice directed toward learning capability of various metal cutting, forming, and joining machines. 1 lec, 4 lab.

**121 Descriptive Geometry (3)**

Prereq: 101 or perm. Graphical solutions of problems relating to points, lines, planes, and solids. Space visualization pertaining to intersections of planes and solids. Exercise sheets and practical applications. 5 lec.

**122 Nomography (2)**

Prereq: 3 yrs h.s. math or perm. Fundamentals of using conversion scales, alignment diagrams, and proportional charts in graphical solution of equations. 3 lec.

**200 Home Mechanics (1-6)**

Simple household maintenance and repair.

**201 Computer Graphics (3)**

Prereq: soph, FORTRAN. Introduction to development of and present-day applications of computer graphics software and hardware systems. Fundamentals of operation of an 1130 computer system linked with interface to a drum plotter, and hands-on problem solving experiences requiring computer-developed graphical solutions and representations. Problem-solving experiences lead to final design project selected by student relative to his or her particular field of interest with instructor's approval.

**216 Metal Machining (4)**

Operation of cutting, grinding, and electrical discharge machines, with emphasis on factors affecting quality control during production. 1 lec, 6 lab.

**220 Small Engines (3)**

Assembly, adjustment, and gauging procedures, as applied to small 2-cycle and 4-cycle gasoline engines. 1 lec, 4 lab.

**244 Graphic Processes (3)**

Production methods applied to letterpress and offset process printing. 1 lec, 4 lab.

**250 Wood Industry (3)**

Woodworking procedures and technology, including machine operation. 1 lec, 4 lab.

**252 Computer-Aided Manufacturing (CAM) (4)**

Prereq: 216 and 250. Applications of computer and micro-processor in automation of manufacturing process. Problem-solving experiences using basic language lead to final design project that will be used in product manufacturing courses. 1 lec, 6 lab.

**260 Line Supervision (3)**

Prereq: 115. Working relationships between personnel involved in production areas of manufacturing considered, including qualifications and characteristics expected for various positions. Case studies provide examples of typical positions and responsibilities available to graduates in industrial technology. 3 lec.

**301 Ceramic Production (3)**

Ceramic materials, with emphasis on production processes. 1 lec, 4 lab.

**302 Vitreous Materials (2)**

Prereq: 301. Application of industrial ceramic products to problems associated with manufacturing. 4 lab.

**308 Plastics (3)**

Applications involving typical materials and forming techniques in production of plastic objects. Study of industry, its basis, and trends. 1 lec, 4 lab.

**309 Plastics Tooling (2)**

Prereq: 308. Study of tooling for plastics forming processes such as extrusion, injection molding, and compression molding. 1 lec, 2 lab.

**310 Metal Casting (3)**

Prereq: 101, 250. Foundry practice extending from pattern design through production of finished casting. 1 lec, 4 lab.

**311 Welding (2)**

Prereq: 115. Varied types of welds, using arc, shielded arc, oxy-acetylene, and spot welders. Analysis of results based upon testing. 4 lab.

**312 Metals Production (3)**

Prereq: 216. Advanced practice of machining techniques organized to illustrate applications of quantity and quality control. 1 lec, 4 lab.

**315 Technical Drawing (3)**

Prereq: 101, 102, IT 216, or perm. Standard and basic drawing representations as applied to industrial products and processes with special emphasis on detail and assembly drawing. 6 lec.

**318 Numerical Control (3)**

Prereq: 117 or 216. Metal machining extending from planning of work program through production of finished article. 2 lec, 2 lab.

**319 APT Programming (3)**

Prereq: 318. Study and application of APT (Automatic Programmed Tool) part programming as it applies to computer programming and numerically controlled machine tools. 3 lec.

**320 Hydraulic Controls (3)**

Prereq: PHYS 201. Application of hydraulic principles to common industrial utilizations for power transmission and mechanism control. Emphasis on study of hardware and circuitry. 1 lec, 4 lab.

**321 Pneumatic Circuits (3)**

Prereq: 320. Components and circuits utilizing compressed air for power and control systems. 1 lec, 4 lab.

**323 Automotive Theory (5)**

Prereq: 220. Adjustments affecting performance and overhaul procedures. Dynamometer testing of performance characteristics. 2 lec, 6 lab.

**332 Electronics (5)**

Prereq: jr or perm. Experimental activity to develop proficiency in utilizing test instruments; learning characteristics of components commonly employed in simple circuits. 2 lec, 6 lab.

**333 Semi-Conductors (3)**

Prereq: 332. Experimental activity revealing performance characteristics of typical components and their functions in basic circuits. 1 lec, 4 lab.

**336 Bioelectronics (3)**

Prereq: jr or perm. Lab course for biological science majors. Electronic principles and circuits, equipment operation, and component selection. Emphasis on measurement and instrumentation. 1 lec, 4 lab.

**341 Process Photography (3)**

Applications of photography, with emphasis upon standardization of quality control, from exposure through printing by photo-offset and screen process methods. 1 lec, 4 lab.

**342 Color Reproduction (3)**

Prereq: 341. Production of multiple-color materials, including preparation of copy, photography, and printing by offset or screen process. 1 lec, 4 lab.

**347 Plastics Process (3)**

Prereq: 308. Typical industrial techniques used to insure quality in processing of manufactured plastics end products. 1 lec, 4 lab.

**350 Furniture Production (5)**

Prereq: 101, 250. Shaping objects from wood through lamination and other methods as illustrations of processes currently employed in industry. 2 lec, 6 lab.

**351 Jigs and Fixtures (3)**

Prereq: 101, 216. Planning and constructing supplemental devices aimed toward increasing production quantity and quality in industry. 1 lec, 4 lab.

**360 Manufacturing (3)**

Prereq: jr rank. Manufacturing process and its integration into public school industrial arts curriculum.

**361 Product Design (2)**

Prereq: 101, 250. Design principles applied through development of products. 4 lab.

**362 Product Manufacture (5)**

Prereq: 12 hrs, jr rank. Development of entire plan for manufacturing products. Plan to include sequence of operations, supply and work flow, personnel requirements, production rate, and cost predictions. 6 lab.

**363 Quality Control (2)**

Prereq: 362. Study and application of quality control principles and practices, using products manufactured within other industrial technology classes as illustrative examples. 2 lec.

**370J Public and Professional Writing (5) (1J)**

Prereq: jr rank. Features preparation, organization, writing and editing for variety of audiences covering wide range of professional writing topics. Satisfies 5 hrs of jr level English composition requirement.

**380 Driver Safety (5)**

Prereq: EDCI 275 or PSY 275. Current traffic conditions and regulations affecting driving as preparation to becoming instructors in driver education. Lab involves working with novice drivers. 4 lec, 2 lab.

**381 Traffic Safety (3)**

Prereq: 380. Organization and administration of driver education, including study of related attitudes and methods practiced in existing programs. Practice instruction included. 2 lec, 2 lab.

**390 Materials (3)**

Prereq: 12 hrs. Sources, manufacture, and applications of common materials not given more extensive coverage within other departmental courses. 3 lec.

**391 Elementary Industrial Arts (2)**

Prereq: basic experience with common tools or perm. Planning and construction of projects appropriate for elementary education, recreation, or personal development. 4 lab.

**395 Co-op Work Study (5, max 15)**

Prereq: perm. Work-study participation in established industrial training programs. Credit dependent upon advance registration and acceptance by approved companies participating in program.

**396 Intern Supervision (3)**

Prereq: 395 or perm. Practice supervision simulating foremanship level for students involved in production activity within other departmental courses. 1 lec, lab arranged.

**413 Die Making (3)**

Prereq: 312. Preparation and utilization of punching, forming, and molding dies for commonly employed industrial processes. 1 lec, 4 lab.

**421 Power Transmission (3)**

Prereq: 220. Practice with common power transmission units, including study of transmission efficiency and adjustments affecting operational characteristics. 4 lab.

**435 Control Circuits (3)**

Prereq: 332. Combinations of basic electronic circuitry in more complex arrangements commonly employed for machine control. Emphasis upon adjustment and correction of malfunctioning controls. 1 lec, 4 lab.

**436 Electronic Applications (3)**

Prereq: 333 or 336. Advanced experimental work on individual problems, as approved by instructor, for extension of knowledge from previous courses. 6 lab.

**443 Advanced Graphics (2, max 4)**

Prereq: 244. Problem solving in graphic reproductions as means of depth study in specific phases of this area. 4 lab.

**465A Workshop in Industrial Education (1-6)**

Special workshop for in-service training of industrial arts teachers. (electricity).

**465B Workshop in Industrial Education (1-6)**

Special workshop for in-service training of industrial arts teachers. (electronics).

**465C Workshop in Industrial Education (1-6)**

Special workshop for in-service training of industrial arts teachers. (metals).

**465D Workshop in Industrial Education (1-6)**

Special workshop for in-service training of industrial arts teachers. (woods).

**465E Workshop in Industrial Education (1-6)**

Special workshop for in-service training of industrial arts teachers. (plastics).

**465F Workshop in Industrial Education (1-6)**

Special workshop for in-service training of industrial arts teachers. (graphic arts).

**465G Workshop in Industrial Education (1-6)**

Special workshop for in-service training of industrial arts teachers. (pneumatics).

**465H Workshop in Industrial Education (1-6)**

Special workshop for in-service training of industrial arts teachers. (hydraulics).

**465I Workshop in Industrial Education (1-6)**

Special workshop for in-service training of industrial arts teachers. (power).

**465K Workshop in Industrial Education (1-6)**

Special workshop for in-service training of industrial arts teachers. (elementary).

**465L Workshop in Industrial Education (1-6)**

Special workshop for in-service training of industrial arts teachers. (administration and supervision).

**465M Workshop in Industrial Education (1-6)**

Special workshop for in-service training of industrial arts teachers. (curriculum development).

**465N Workshop in Industrial Education (1-6)**

Special workshop for in-service training of industrial arts teachers. (facilities).

**465O Workshop in Industrial Education (1-6)**

Special workshop for in-service training of industrial arts teachers. (innovative programs).

**465P Workshop in Industrial Education (1-6)**

Special workshop for in-service training of industrial arts teachers. (ceramics).

**465Q Workshop in Industrial Education (1-6)**

Special workshop for in-service training of industrial arts teachers. (crafts).

**470 Intern Teaching (3)**

Prereq: EDSE 351. 12 hrs. (winter) Presenting technical and related material in industrial arts classes. 2 lec, lab arranged.

**471 Administration of Industrial Education (3)**

Prereq: 12 hrs. (fall) Types of organization, laboratory planning, equipment selection, and accounting systems found in vocational and nonvocational industrial education. 3 lec.

**472 Contemporary Programs (3)**

Prereq: 12 hrs. (spring) Development and application of industrial arts programs. 1 lec, 4 lab.

**483 Safety Programs (4)**

Prereq: 380 or 12 hrs. Organization patterns of safety programs and how they are applied to industrial, educational, and traffic safety situations.

**484A Maintenance Systems (3)**

Prereq: 12 hrs. Maintenance systems currently utilized, with consideration of where and how each may be installed. Covers material related to industrial maintenance systems. 3 lec.

**484B Maintenance Systems (3)**

Prereq: 12 hrs. Maintenance systems currently utilized, with consideration of where and how each may be installed. Covers material related to industrial arts labs. 3 lec.

**490 Special Problems (1-5, max 5)**

Prereq: sr rank, perm. In-depth study in related technical areas.

## Industrial Technology (A.A.S.-Design)

The following courses (designated DTCH) for the design option of the A.A.S. program in industrial technology are available only on the Lancaster campus.

**100 Introduction to Industrial Technology (3)**

(optional) An overview of the design and manufacturing options. Topics include machining, welding, steel production, quality control, interrelation of processes, design concepts, materials, mechanisms, and structures. Plant tours, lab work,

and projects involved. Recommended for students having little or no background in mechanical design or manufacturing. 2 lec, 2 lab.

**150 Detail and Assembly Drawing (3)**

Prereq: IT 102, IT 216, or perm. Preparation of detail and assembly drawings from layouts and design sketches. Determination of tolerances, consideration of manufacturing processes on dimensioning, use of reference materials. 6 lab.

**200 Engineering Mechanics I (4)**

Prereq: MATH 119 or perm. Basic statics and dynamics. Coverage includes vectors, Newton's laws, trusses, frames and machines, friction, moments of inertia, particle kinematics and kinetics, work-energy, impulse-momentum. 4 lec.

**210 Engineering Mechanics II (4)**

Prereq: 200 or perm. Introduction to strength of materials. Axial, torsional, and flexural loadings; plane stresses; beams; columns; deflections; statically indeterminate systems; testing methods. 3 lec, 2 lab.

**220 Machine Design (3)**

Prereq: 110, 210, or perm. Design of machine elements. Shafts, brakes, clutches, belts, couplings, bearings, springs, gears, fasteners, splines, and keys. Stresses in machine parts, materials applications. 3 lec.

**230 Tool Design (4)**

Prereq: 110, 150; IT 115, 216; or perm. Basic jig and fixture design. Relation to manufacturing processes, material requirements, introduction to die design, gauging, and cutting tools. Design projects. Use of standards. 1 lec, 6 lab.

**240 Mechanisms (4)**

Prereq: 200, IT 121, or perm. Design and analysis of simple mechanisms. Kinematics and kinetics of rigid bodies, graphical analysis of force, velocity and acceleration problems, linkages, instantaneous centers, gear trains, cams, rolling contact. 1 lec, 6 lab.

**250 Structural Design (4)**

Prereq: 110, 150, 210, or perm. Design of structural components in buildings. Foundations, connections, materials selection, use of industry standards. 1 lec, 6 lab.

**299 Special Problems (1-3, max 6)**

Prereq: perm. Individual projects or internship experiences under direction of a faculty member in the design option.

## Industrial Technology (A.A.S.-Manufacturing)

The following courses (designated MTCH) for the manufacturing option of the A.A.S. program in industrial technology are available only on the Lancaster campus.

**100 Introduction to Industrial Technology (3)**

(optional) See description under DTCH 100 in design option courses.

**220 Basic Hydraulics (3)**

Prereq: PHYS 201. Application of hydraulic principles to common industrial control circuits. Emphasis on maintenance of hardware and circuitry. Field trips part of lab activity. 1 lec, 4 lab.

**221 Basic Pneumatics (3)**

Prereq: 220. Application of compressed air control systems to common industrial control circuits. Emphasis on maintenance of hardware and circuitry. 1 lec, 4 lab.

**261 Manufacturing I (Processes) (3)**

Comprehensive study of machine processes used in manufacturing with regard to their selection and plant layout requirements. Field trips part of lab activity. 2 lec, 2 lab.

**262 Manufacturing II (Inventory, Handling, Costing) (3)**

Prereq: 261 or perm. Inventory control, materials handling and production costs, storing and handling of materials before,

during, and after manufacture. Field trips part of lab activity. 2 lec, 2 lab.

### 263 Manufacturing III (Quality Control) (3)

Analysis of basic principles of quality control. Includes statistical aspects of tolerance, basic concepts of probability, frequency distribution, sampling inspection, charts and gauges related to inspection. Field trips part of lab activity. 2 lec, 2 lab.

### 264 Manufacturing IV (Scheduling) (3)

Various established techniques of scheduling, analyzing, and improving production operations. Detailed study of applications of CPM scheduling. Introduction of PERT. Field trips part of lab activity. 2 lec, 2 lab.

### 290 Materials (3)

Prereq: CHEM 121 or perm. Applications of materials used in manufacturing and design. Metallic structure, alloys; heat treating; comparative properties of metals, plastics, and ceramics; processing effects; testing methods; coatings, lubricants, etc. 2 lec, 2 lab.

### 299 Special Problems (1-3, max 9)

Prereq: perm. Individual projects or internship experiences under supervision of faculty member in the manufacturing option

## INTERNATIONAL STUDIES

### Major in International Studies

(Major Code #4205)

Requirements for the A.B. degree major program in international studies consist of a minimum of 52 hours chosen from areas I and II as follows: *AREA I, International Studies* — a minimum of four courses, two on relations among nations and two on comparative studies. *AREA II, World Regions* — a minimum of 36 hours of coursework concerning one of the following world regions: Africa, Asia, Latin America, Soviet Union and Eastern Europe, or Western Europe. A list of courses which may be used to complete these requirements may be obtained from the Center for International Studies or the College of Arts and Sciences.

Other requirements: 1) No more than 24 of the credit hours completed in pursuit of the 52 required for the major may be in any one department\*. One course must be chosen from at least three departments with at least one course in fine arts or humanities. 2) Courses used to satisfy general Arts and Sciences requirements for the A.B. degree cannot be used to meet major requirements and vice versa. 3) The language chosen to fulfill the A.B. degree language requirement must be appropriate to the area of specialization chosen from AREA II of the major requirements. 4) The program requires the completion of ten hours of English which, except for ENG 150, will apply to the humanities area requirement.

\*Art, English, Philosophy, Art, and Education, except as noted, department for distribution requirements.

### International Studies Certificate

The Center for International Studies offers a certificate in international studies as a supplement to undergraduate major programs other than the major in international studies. The student may concentrate on Asia, Africa, or Latin America. The requirements for the Latin American certificate are: (1) six courses relating to Latin America; (2) a study of a language relevant to the student's program through the intermediate level; (3) a grade point average of 2.50 in all courses taken toward the certificate. The requirements for the Asian or African certificate are: (1) nine courses, which may be chosen in either of these two options. Option A — Three of the courses must be in an African or Asian language and the other six must relate to Africa or Asia. Option B — The nine courses may relate to Africa or Asia but with no language requirement; (2) a grade point average of

2.50 in all courses taken toward the certificate. The certificate is awarded upon graduation from Ohio University. Students seeking the certificate must register with the undergraduate certificate advisor in their area studies program.

For further information about the undergraduate certificates, the Center for International Studies, Asian, African, and Latin American languages, and other international activities, see the *Center for International Studies* section of this catalog.

The Center for International Studies is responsible for the following interdisciplinary courses.

### 103 Modern Asia (5) (2T)

Introduction to history, cultures, and current problems of civilizations of Asia. Interdisciplinary survey dealing with China, Japan, India, and Southeast Asia (Burma, Thailand, Vietnam, Cambodia, Laos, Malaysia, Singapore, Indonesia, and the Philippines).

### 113 Modern Africa (4) (2T)

Interdisciplinary introductory survey of Africa, its culture, history, and modern development. Disciplines included: anthropology, art, dance, economics, education, geography, history, linguistics, literature, and political science.

### 121 Interdisciplinary Survey of Latin America (4) (2T)

Introduction to Latin America through geography, politics, sociology, economics, literature, and art. Special emphasis given to 20th century issues, problems, and developments.

## INTERPERSONAL COMMUNICATION

### 101 Fundamentals of Human Communication (3)

Introductory analysis of oral communication in human relationships with focus on variety of contexts including: dyadic, small group, and public communication experiences. Serves as survey of human communication processes.

### 103 Fundamentals of Public Speaking (4)

Principles of public speaking, practice in presenting informative and persuasive speeches with emphasis on communicative process.

### 104 Listening (2)

Improvement of listening skills through intensive practice.

### 107 Introduction to Verbal Language Behavior (2) (2S)

Fundamental linguistic theory of verbal language production in message generation, oral, vocal, and verbal. International Phonetic Alphabet studied in relation to speech, articulation, and pronunciation.

### 205 Group Discussion (4) (2S)

Study of structure and internal dynamics of small groups, nature and functions of leadership and group participation, problem solving, and decision making; frequent participation in group discussion activities.

### 206 Communication in Interpersonal Relationships (4) (2S)

Provides maximum experience in study of communication in social interaction. Exploration of communication variables, and skill development in message generation in 1 to 1 informal settings.

### 210 Parliamentary Procedure (2)

Non lecture, small group work in theory and procedures by which organizations are run according to rules of order.

### 212 Message Preparation (4)

Prereq: 103 or 217B or perm. Theory and practicum in message preparation and presentation with emphasis on informative and persuasive forms. Intensive concentration on developing individual oral communicative skills.

### 215 Argumentation and Debate (4)

Basic principles of argumentative discourse including concepts of presumption, burden of proof, rhetorical forms of reasoning, and evidence. Practice in applying these principles.



**217A Forensic Workshop – Debate (1-3)**

Prereq: perm. Intensive work in Intercollegiate Forensics Program. Students prepare for debate on contemporary issues. For credit, students must participate in 1 intercollegiate contest. (3 hrs per qtr possible up to a total of 12 hrs credit, no grade).

**217B Forensic Workshop – Individual Events (1-3)**

Prereq: perm, participation in O.U. Forensic Program. Students prepare for community appearances and tournament competition in oral interpretation, persuasion, informative, rhetorical criticism, extemporaneous, impromptu, and after-dinner speaking. For credit, students must prepare 2 events for at least 1 collegiate tournament. (3 hrs per qtr possible up to a total of 12 hrs credit, no grade).

**220 Oral Interpretation of Literature (4)**

Techniques of oral interpretation and development of adequate intellectual and emotional responsiveness to meaning of literature.

**234 Introduction to Communication Theory (5) (2S)**

Prereq: soph rank and INCO 101. Survey of selected humanistic and scientific approaches to communication studies. Emphasis on philosophical bases of communication theory.

**245 Introduction to Organizational Communication (4) (2S)**

Prereq: INCO 101. Analysis of traditional and contemporary theories of communication in context of modern complex organizations (government, industry, education, etc.). Consideration and explication of such pertinent concepts and variables as message, channel, networks, information, information flow, communication climate, communication audit, etc.

**301 Empirical Research Applications in Communication (5)**

Prereq: INCO major, jr rank, and MATH 113 or perm. Provides undergraduates with principles and basic skills necessary to criticize research literature, develop minimal proficiencies in structuring designs basic to descriptive and experimental studies, including data collection, analysis, and presentation techniques in communication research.

**342 Communication and Persuasion (4)**

Process of communication and attitude change, survey of general theories and typical research, analysis of contemporary persuasion problems.

**353A History and Criticism of Courtroom Oratory (3)**

Famous cases and methods of communication of masters of courtroom and judicial oratory. Cases, trials including Cicero, Strafford, Charles I, Erskine, Hastings, Marshall, Webster, Darrow, Sacco-Vanzetti.

**353B History and Criticism of Political Oratory (3)**

Methods of communication, rhetorical theories of masters of political oratory. Debates including Burke, Chatham, Pitt, Calhoun, Clay, Webster. Movements including nationalism, imperialism, social and political reform.

**353C History and Criticism of 20th Century Oratory (3)**

Methods of communication of masters of the period. Figures: Hitler, Mussolini, Lenin, Wilson, Churchill, Roosevelt, Kennedy, King. Movements: rhetoric of revolution, nationalism, fascism, socialism, communism, republicanism.

**353D History and Criticism of Black Oratory (3)**

Methods of communication and rhetorical theories of masters of black oratory. Figures drawn primarily from 20th century black speaking.

**404 Principles and Techniques of Interviewing (4)**

Prereq: perm and sr rank. Methods used in 2-party, face-to-face oral communicative situations commonly encountered in organizational and professional environments. Intensive practice through role-playing and real-life interviews in and out of class, emphasizing skills involved in giving and getting information, persuasion, and job-employment situations.

**405 Principles of Conference Leadership (4)**

Prereq: 205 or perm. Theoretical and methodological approaches to principles of group and conference leadership.

Emphasis on "leadership" methods and skills as they apply to group and conference situations.

**421 Instructional Training and Development in Communication (5)**

Prereq: 3rd qtr jr or sr. Provides upper-level undergraduate and graduate preprofessional and professional training in development of interpersonal communication as human resource. Emphasis on application of communication skills necessary in organizational construct; education, business, professions, and governmental service.

**425A Direction of Forensic Programs in Secondary Teaching (3)**

Prereq: 103 and 217 or perm. Curriculum, coaching, budgeting, judging, public relations, professionalism, and tournament management. Practical application in high school forensics programs.

**425B Direction of Forensic Programs in College Teaching (3)**

Prereq: 103 and 217 or perm. (winter, summer) Study in curriculum, coaching, budgeting, judging, public relations, professionalism, and tournament management. Practical application in university forensics programs.

**433 Applications of General Semantics (4)**

Chief formulations from general semantics and their applications to field of communication.

**435 Theories of Argument (3)**

Relations between formal logic and rhetorical systems of argument; intensive study of fallacies and of experimental findings related to study of argument.

**445 Practicum in Organizational Communication (5)**

Prereq: sr rank; 245 and 301. Message generation and analysis in simulated organizational environment; simulation of specific communication situations and problems student may encounter in professional career; opportunity to apply skills and theories.

**446 Communication and the Campaign (5)**

Prereq: perm and sr rank. Theory and practice of persuasion and management in campaign situations (political, religious, information, fund-raising, advertising, etc.). Students may participate in local, state, or national campaigns, or do research paper in depth.

**448 Cross-Cultural Communication (4)**

Analysis of processes and problems of communication as affected by national cultures; effects of differences in language, values, meaning, perception, and thought.

**450 Introduction to Rhetorical Theory (3)**

Prereq: 103 and 215 or perm. Ancient and modern rhetorical communicative concepts and theories.

**452 Psychology of Speech (4)**

Psychological principles active in communication such as concept-reference, meaning, vocal, verbal and nonverbal cues. Neurophysiological mechanism and socio-psychological-linguistic dimensions of speech examined.

**458 Responsibilities and Freedom of Speech in Communication (4)**

Ethical and rhetorical implications of constitutional guarantees on political, social, and religious speech: Analyses of effects of famous legal cases on freedom of speech.

**465 Field Research Methodologies in Communication (5)**

Prereq: INCO 301 or perm. Development of communication methods such as content analysis, participant observations, Q-analysis, questionnaire design, sampling procedures, case studies, and unobtrusive measures.

**495 Senior Project in Organizational Communication (4)**

Prereq: sr major. Contracted individual projects. Wkly mtgs with instructor. Written analysis of each project subject to evaluation.

**496 Extended Instructional Seminar (1-16)**

Formalized extended learning special topics seminar. Not intended for regular student. No graded evaluation; awards credit-noncredit.

**497 Internship (1-15)**

Prereq: perm. Systematic, supervised practical training and experience for undergraduate students in selected professional environments.

**498 Independent Study (2-4, max 12)**

Prereq: written proposal, perm. May be repeated for credit.

## ITALIAN

See Foreign Languages and Literatures.

## JOURNALISM

The Ohio University School of Journalism is accredited by the American Council on Education for Journalism. As one of a limited number of accredited schools and departments of journalism in the United States, it is a member of the American Association of Schools and Departments of Journalism.

**105 Introduction to Mass Communications (4) (2S)**

All forms of mass communication including newspapers, magazines, radio-television, book publishing, public relations, advertising, and photojournalism. Begins with analysis of communication process and ends with media career opportunities. Similar to R-TV 105 and INCO 105.

**189 Journalism Workshop (1-4)**

Workshop on selected topics of journalism and mass communication. May be repeated to total 6 hrs of credit.

**221 Graphics of Communication (5)**

Prereq: majors only. Creative and practical aspects of typography, layout, and design of printed communication.

**231 News Reporting (4)**

Prereq: typing proficiency and passage of English Proficiency Test. Methods of gathering and evaluating news and writing typical news stories. Practice work covering assignments and preparing copy.

**250 Advertising Principles (5)**

Prereq: advertising and PR majors or perm. Major factors in development of advertising programs.

**311 History of American Journalism (4)**

Prereq: major or perm. Development of newspaper, magazine, and broadcast journalism from colonial period to present. Social, political, economic, and mechanical aspects.

**321 Print Advertising and Layout (4)**

Prereq: 221, 231, 250 and major or perm. See title.

**323 Advertising Practice (2)**

Prereq: 321, perm. Lab work in preparing advertising for local advertisers.

**325 Photojournalism (3)**

Prereq: 231 or perm. Basic principles and practices of photojournalism for newspapers, magazines, and television. Includes consideration of roles of photographers and picture editors in communications and their relationships with other members of the editorial team and mechanical departments of publications. Students shoot, process, and print pictures on assignment.

**326 Advanced Photojournalism (3)**

Prereq: 325. See title.

**331 Reporting Contemporary Issues (3)**

Prereq: 231 jr or sr rank. Research, reading, and speech report

ing on current social problems. Emphasis on intelligent understanding and ability to report in depth for mass audience.

**332 Reporting Practice (2)**

Prereq: 231, perm. Assignments at the *Athens Messenger* in city, sports, and women's desk reporting, along with features.

**332B Reporting Practice (2)**

Prereq: 231 and perm. Assignments at the Center for Afro-American Studies in news and feature reporting about black community.

**333 News Editing (4)**

Prereq: C or better in 231, passage of English Proficiency Test. Copyreading, headline writing, news selection, and layout of news pages.

**334 Editing Practice (2)**

Prereq: 333, perm. Copyreading on the *Athens Messenger*. Handling of local correspondence, wire copy, and working out make-up problems.

**335 Picture Editing (3)**

Prereq: 333 or perm. Principles and practices of picture editing. Includes consideration of picture sources, assignment, and handling; photographic technique and esthetics; legal and ethical factors; visual idiosyncrasies of various media.

**351 News in Broadcasting (5)**

Prereq: 231 and 333 or perm. News programming, practices, and problems in broadcasting. Preparation of news reports for broadcasts.

**353 Broadcast News Practice (2)**

Prereq: 351 or perm. Preparation of news for broadcast. Students serve as assistants in newsroom of University's broadcasting stations or, by special arrangement and perm, in other stations.

**362 Community Newspapers (3)**

Prereq: 333 or perm. Editorial and business practices of suburban weeklies and dailies.

**363 Reviewing and Criticism (3)**

Prereq: 231 and major or perm. Written criticism of fine and popular arts. Special role of critic who serves both as reporter and evaluator of artistic works for lay audience.

**411 Newspaper and Communications Law (4)**

Prereq: C or better in 333. Principles and case studies in communications law, constitutional guarantees, libel, privacy, contempt, privilege, copyright, and government regulatory agencies.

**412 Mass Media and Society (3)**

Prereq: C or better in 333 and 411 or perm. Social responsibility of journalistic or other mass communicator. Professional codes, responsibility of media for social change, reaction to political and economic pressures.

**421 Graphic Production Processes (5)**

Prereq: 221 and perm. Advanced study of all processes for reproducing printed communication. Theory and lab.

**422 Advertising Production (3)**

Prereq: 221, 321, or perm. Techniques and problems in methods of advertising production.

**430 Magazine Editing and Production (4)**

Prereq: 221, 333. Theory and techniques of magazine editing and production, including analysis of the magazine industry and of specific magazines and audiences they serve. Editorial objectives and formulas, issue planning, article selection, layout, illustration, typography, printing, and distribution. Magazine project required.

**431 Magazine Editing and Production Practice (3)**

Prereq: 430. Practice course on School of Journalism's quarterly laboratory magazine. Each student assigned specific responsibilities in magazine editing, production, advertising, and circulation.

### 432 Specialized Magazines (3)

Prereq: sr rank or perm. Study in depth of professional, business, industrial, learned, or other specialized magazines. Consideration of all types of publishing problems, usually as case studies.

### 441J Magazine Feature Writing (4) (1J)

Prereq: 231 and 333, 15 hrs English, or perm. Writing and marketing factual magazine feature articles of various types. Finding subjects, securing photographs, writing articles, and surveying markets.

### 442 Advanced Magazine Feature Writing (3)

Prereq: 441. Writing and marketing magazine articles. Emphasis on specialized markets.

### 450 Advertising Copy Writing (3)

Prereq: 221, 231, 250 and advertising or PR majors or perm. Effective persuasion in all media.

### 452 TV Newsfilm Production and Editing (3)

Prereq: 351 or perm. Principles and practices of TV newsfilm production and editing. Similar to R-TV 452.

### 455 Seminar in Broadcast News (3)

Prereq: perm. Discussion of problems — operational, social, economic, legal, and ethical — faced by broadcasters reporting public affairs.

### 461 Specialized Journalism (3)

Prereq: sr rank and perm. Seminar approach to individual study of journalistic areas of special interest to individual students.

### 462 Internship (3)

Prereq: perm before beginning internship. Conference course for students who have completed internship with an approved organization. Student will submit a comprehensive report analyzing internship experience.

### 464 Reporting of Public Affairs (3)

Prereq: 333, sr rank, major or perm. Problems of preparing in-depth, interpretive, and analytical reports on public affairs for mass media, with practice in writing such reports. Focus mostly on contemporary controversial issues.

### 465 The Editorial Page (3)

Prereq: 333, sr rank, major, or perm. Editorial page in opinion formation. Problems of content selection and presentation. Extensive writing of analytical and persuasive editorials and interpretive articles in depth.

### 466 International Communications (5)

Prereq: sr rank and major or perm. Development and operations of world mass communication channels and agencies. Comparative analysis of media, media practices, and flow of news throughout world. Relation of communication practices to international affairs and understanding.

### 467 Foreign Correspondence (3)

Prereq: sr rank and 466 or perm. Role of foreign correspondent in news-gathering. History, scope, techniques.

### 471 Public Relations Principles (5)

Prereq: 333, sr rank, and PR major or perm. Public relations planning and techniques; selected communication studies and theories. Polling, defining objectives, and analysis of public relations messages.

### 472 Advanced Public Relations (4)

Prereq: 471 or perm. Planning public relations programs and projects, including selection of audiences, messages, and media, and evaluation of effects. Project in area of student's interest.

### 481 Newspaper Management (3)

Prereq: 333. Problems in publishing affecting all departments.

### 482 Radio-Television Advertising and Management (4)

Prereq: 221, 231, and 250 or perm. See title.

### 484 Supervising School Publications (4)

Prereq: 12 hrs or perm. Conference course for prospective advisors of school newspapers, yearbooks, magazines, and other publications. Purposes and functions, legal aspects, staff

selection, content, copy, layout, production, printing, advertising, photography, business.

### 485 Journalism in the Secondary School Curriculum (4)

Prereq: 9 hrs of journalism. Intensive study and analysis of appropriate content for high school journalism courses. Planning course outlines and curricula.

### 489 Journalism Workshop (1-4)

Selected topics of journalism and mass communication, including newspapers, yearbooks, photojournalism, advertising, magazines, public relations, and publications advising. May be repeated to total 10 hrs of credit.

### 490 Independent Study (1-4)

Prereq: written proposal and perm. See title. May be repeated to 15 hours credit.

### 491 Research in Journalism and Communications (1-15)

Prereq: perm.

### 492 Seminar (1-4)

Prereq: 333, sr rank. Selected topics of current significance. May be repeated with different topics to 12 hours credit.

## LATIN

See Foreign Languages and Literatures.

## LATIN AMERICAN STUDIES

See International Studies.

## LAW ENFORCEMENT TECHNOLOGY

The following courses for the A.A.S. program in law enforcement technology are available only on the Chillicothe campus.

### 100 Introduction to Law Enforcement Technology (3)

Philosophy and history of law enforcement; overview of crime and police problems; organization and jurisdiction of local, state, and federal law enforcement agencies; survey of professional career opportunities and qualification required.

### 110 Police Role in Crime and Delinquency (3)

Extent and distribution of crime and delinquency, with special emphasis on basic factors and conditions contributing to problem; some case study and evaluation of community resources in prevention field and detailed review of role of school, family, religious institutions, law enforcement agencies, courts, and correctional institutions. Part law enforcement agencies play in juvenile delinquency control, organization and functions of related juvenile agencies, laws governing handling of juvenile offenders, and brief resume of juvenile court and its jurisdiction.

### 120 Constitutional, Criminal, and Civil Law (3)

Study of the U.S. constitution and amendments thereto by text material and case method system; major emphasis in freedom of speech, search and seizure, arrest and detention, interrogation and confession, self incrimination, right to counsel, double jeopardy, and due process situations.

### 130 Interviewing and Report Writing (3)

Examination of interviewing and interrogation procedures employed by law enforcement for obtaining information plus practical experience in use of methods. Mechanics of writing

reports, including collecting information and taking statements, writing descriptive narratives, and report revision.

#### **140 Introduction to Criminalistics (3)**

Survey of systematic collection of evidence and potentialities and recommendations of applied science to criminal investigation. Includes demonstration of techniques utilized in processing criminal evidence and practical experience in selected crime lab methods.

#### **150 Police Patrol Operations (3)**

Focus on patrol function. Examination of purposes, methods, techniques, and types of patrol. Overview of support services, examination of various police services and public assistance, and analysis of deployment procedures and practices as related to overall mission of police patrol.

#### **200 Procedures, Rules, and Test of Evidence (4)**

Prereq: 120 or perm. Instruction designed to acquaint officer with court system in Ohio, its functions, authority, and duties. Explains workings of all courts of record and provides description of mayor's courts which are the only courts not of record in State of Ohio. Kinds and degrees of evidence. Admissibility of evidence in criminal court cases, materiality and competency of evidence. Distinction between admissions and confessions; exceptions to hearsay rule; types of evidence.

#### **210 Cybernetics (3)**

Application and use of computers and/or automated systems for rapid storage and retrieval of information. Types of electronic data processing systems and their compatibility with contemporary police operations explored.

#### **220 Court Procedures and Processes (3)**

Case preparation, officer testimony and demeanor in court, effective preparation and presentation of criminal evidence, trial procedures, utilization of written notes, and reaction to cross examination.

#### **230 Police Community Relations (3)**

Nature of relationships between police and various segments of community; racial and/or ethnic minorities, news media, clergy, and youth explored. Historical reasons for present dilemma and suggested changes to alleviate these problems.

#### **240 Law Enforcement, Administration and Supervision (3)**

Prereq: 103 or perm; 2nd yr law enforcement technology students or law enforcement personnel. Principles of law enforcement agency administration. Organization, planning and research, management, personnel management, training, and public relations. Administrative functions in vice control, crime delinquency prevention and control, patrol, investigation, communications, statistics, and records.

#### **250 Vice and Narcotic Control (3)**

Exploration of history, identification, and effects of narcotics. Narcotic and vice problem as it exists and penal statutes affecting control of narcotics and vice studied.

#### **260 Criminal Investigation (3)**

Prereq: 201 Fundamentals of investigation; crime scene search and recording, collection and preservation of physical evidence, scientific aids, *modus operandi*, sources of information, interviews and interrogation, follow-up, and case preparation. 3 lec, 2 lab

#### **270 Arrest, Search and Seizure (3)**

Prereq: 200 In-depth discussion of moral and legal obligations in use of police weapons. Includes legal provisions, safety precautions, and restrictions in use of firearms. Advanced theories and application, police combat shooting, all-weather firing, and new developments in police weaponry. Training for student in lawful methods of search and seizure and discussion of search of persons, places, and things, with emphasis on legality. Applicable court decisions and rulings presented and discussed. 3 lec, 2 lab

#### **280 Traffic Enforcement, Education and Engineering (3)**

Prereq: 102 Law relating to registration of motor vehicles,

driver's license, Vehicle Code sections most often encountered and violated, regulation and traffic control, traffic accident investigation, traffic accident report forms; types and uses.

#### **290 Special Problems (3)**

Provides opportunity for students to explore topics of interest on individual basis, or in structured courses developed as common interest arises.

## **LIBRARY MEDIA TECHNOLOGY**

The following courses for the A.A.S. program in library media technology are available only on the Lancaster campus.

#### **101 Introduction to Libraries and Library Technology (3)**

General introduction to libraries and their organization. Designed for students interested in employment as library technical assistants in special, school, public, or college libraries.

#### **102 Support Operations for Public Services I (4)**

Designed to acquaint library technology students with various kinds of public services including circulation control systems, location of information, and public relations.

#### **103 Support Operations for Public Services II (4)**

Emphasizes materials and techniques in reference and information services. Includes understanding of skills needed in patron interviews.

#### **104 Support Operations for Technical Services I (4)**

Basic procedures in ordering, receiving, organizing, and processing of printed library materials.

#### **201 Support Services for Specific Groups I (4)**

Introduces different types of library users — children, young adults, disadvantaged, minorities, etc. Provides background information concerning material, print and nonprint, to enable LMTC to direct public to library service which will best serve its needs.

#### **202 Support Services for Specific Groups II (4)**

Specific techniques with which LMTC assists librarian in direct service to community of library users. Introduction of new and innovative methods of servicing total library community.

#### **203 Library Technician Internship (3)**

Prereq: perm. Exploratory experience in several types of libraries: observation plus participation in routines where possible.

#### **204 Support Operations for Technical Services II (3)**

Introduction to simple cataloging and classifying procedures.

#### **205 Library Technician Internship II (4)**

Prereq: perm. Work experience — 180 hrs or approximately 5 wks — in library/media center. Exposure to variety of activities under qualified professional staff. Weekly seminar required (See 209).

#### **206 Audio-Visual Methods and Materials (4)**

Operation and simple maintenance of audio-visual equipment and technical procedures used in processing, cataloging, circulating, and servicing requests for audio-visual materials.

#### **207 Preparation of Audio-Visual Materials (4)**

Preparing simple audio-visual materials and sources of commercially prepared materials

#### **208 Support Operation for Technical Services III (3)**

Prereq: 204 Additional study and practice in cataloging and classification including Library of Congress classification, non-print media and use of OCLC terminal.

#### **209 Seminar (1-3)**

Prereq: 205 Weekly seminar required of those taking 205.

Credit hours determined by amount of necessary independent study.

### **290 Independent Study (1-10)**

Prereq: perm. Research in selected areas of library science and technology under direction of faculty member.

## **LIBRARY SCIENCE**

See Education — Curriculum and Instruction.

## **LINGUISTICS**

A major in linguistics is not offered. Students desiring to prepare for graduate study in linguistics should consider taking 270, 280, 290, 350, 380, 390, 440, 445, 460, 470, 480, 482, 486, 490, 491, and 499. Programs in related fields in communication, social sciences, and humanities can be enriched by inclusion of these linguistic courses open to undergraduates. See the entry, Linguistics, under Special Curricula in the College of Arts and Sciences.

A minor in linguistics requires a minimum of 25 hours, with at least two courses at the 400 level. Areas of specialization include general linguistics, sociolinguistics, and English as a second language.

### **270 The Nature of Language (5) (2S)**

Nontechnical investigation into basic nature of human language.

### **280 Language in America (5) (2S)**

Prereq: soph or above. Analysis of similarities and differences of language behavior in America.

### **290 Introduction to Psycholinguistics (4)**

Prereq: PSY 101. (fall) Study of linguistic behavior and psychological mechanisms responsible for it.

### **350 Introduction to General Linguistics (5) (2S)**

Prereq: jr or sr rank. Technical introduction to devices of language description, and survey of relationships and applications of linguistics to other disciplines.

### **380 Introduction to Language and Culture (5) (2S)**

Similarities and differences of language behavior in a variety of cultural contexts.

### **390 Language of Women and Men (3) (2S)**

American speech as used by women and men in terms of linguistic and social factors.

### **395 Introduction to Area Linguistics (3-5) (2T)**

Prereq: perm. Investigation of linguistic characteristics of specific group or subgroup of languages within Malayo-Polynesian or African families.

### **440 Introduction to Bilingualism (5)**

Prereq: 270 or 350 or perm. (spring) Introduction to bilingual education from legal, sociological, educational, and linguistic perspectives.

### **445 Instructional Materials in Bilingualism (5)**

Prereq: 440 or perm. (spring) Creation and analysis of teaching materials in bilingual education.

### **460 Phonology (5)**

Prereq: 350 or perm. (fall) Introductory course in analysis of sound systems of natural languages.

### **470 Syntax (5)**

Prereq: 350 or perm. (fall) Introduction to theory and application of grammatical analysis of natural languages.

### **480 TEFL Theory and Methodology (5)**

Prereq: 350. Second language teaching theory and methodology, with emphasis on teaching English as a foreign language.

### **482 Materials in TEFL (5)**

Prereq: perm. Theory and practice of analysis, evaluation, and creation of instructional materials for teaching English as a foreign language.

### **486 Theories of Language Learning (5)**

Prereq: perm. (fall) Introduction to theories of 1st and 2nd language acquisition and their implication for language teaching methodology.

### **490 Sociolinguistics I (5)**

Prereq: 350. Developing personal insights into similarities and differences of language behavior in a variety of linguistic and cultural contexts.

### **491 Sociolinguistics II (5)**

Prereq: 490. (spring) Introduction to relationships between interlocking systems of language and social grouping.

### **499 Special Studies in Linguistics (1-3)**

Prereq: perm. Independent study of a particular area of interest in linguistics.

## **MALAYSIAN**

See Foreign Languages and Literatures.

## **MANAGEMENT**

### **200 Introduction to Management (4) (2S)**

Prereq: Not open to CBA students. Nature of managerial concept, managerial functions, and organizational structure, with emphasis on current issues.

### **300 Management (4)**

Prereq: jr rank or soph if management major. Understanding of and practice in solving problems facing managers and administrators using concepts and principles from behavioral sciences and other applicable disciplines.

### **325J Communication Behavior in the Modern Organization (4) (1J)**

Prereq: jr rank or soph if management major. Introduction to basic concepts of organizational communication and practice with written communication forms (letters and reports). Brief consideration given to oral communication.

### **420 Administration of Personnel (4)**

Prereq: 300 or perm. Practices in recruitment, evaluation, counseling, training and development, discipline, and compensation of employees. Includes typical personnel staff functions such as manpower planning, safety administration, attitude surveys, record keeping, and audit of programs.

### **421 Personnel Management Problems (4)**

Prereq: 420. Personnel problems and their relation to various ethological concepts. Case approach.

### **425 Labor Relations (4)**

Prereq: 300 or perm. Climate of relations between labor and management, union organizing, collective bargaining, grievance procedures, arbitration. Uses readings, cases, and class exercises to develop understanding of labor-management problems and ability to solve them.

### **426 Manpower Management (4)**

Prereq: 420 and 425 or perm. Advanced course in management of human resources of organization. Integrates personnel and labor relations at planning and policy-making level.

### **428 Nonindustrial Labor Relations (4)**

Prereq: jr rank and perm. Labor management relations problems and practices in nonprofit-making organizations such as government (city, county, state, and federal), educational institutions, charity and health care organizations. Covers such

topics as relevant laws and regulations, administrative response to unionization attempts, contract negotiations, contract administration including grievance handling and arbitration through lectures, readings and case analyses.

**430 Management Systems: Decision-Making (4)**

Prereq: 300 or perm. Decision-making and problem solving in organizations from managerial perspective.

**435 Management Systems: Information Handling (4)**

Prereq: 430 or perm. Focuses upon humans and machines as components of formalized information systems. Subject matter approached from systems and procedures viewpoint, with particular emphasis on management planning and control techniques.

**440 Organizational Behavior – Leadership and Motivation (4)**

Prereq: 300 or perm. Conceptual framework of behavioral sciences to management and organizations. Motivation and leader behavior within organizational settings.

**445 Organizational Behavior – Work Groups and Formal Organizations (4)**

Prereq: 440 or perm. Organizational theory and behavior emphasizing formal organizational theory and work group behavior. Concentrates on interaction between organization, its environment and its members, and influences of informal work groups on member behavior.

**450 Managing Health Care Organizations (4)**

Prereq: 200 or 300. Develops conceptual tools for understanding health care management problems.

**484 International Comparative Management (4)**

Prereq: sr rank. Survey and analysis of similarities and differences in management systems, processes, and styles, as well as evaluation of changes and their impact in selected groups of countries.

**491 Seminar (3, 4 or 5)**

Prereq: perm. Selected topics of current interest in management and organizational behavior area.

**492 Management Thought (4)**

Prereq: sr rank. Review of development of managerial theories from 5000 B.C. to present with consideration of their application to present organizational settings.

**493 Readings (1-5)**

Prereq: perm. Readings in selected fields of management and organizational behavior. Topics selected by student in consultation with faculty member.

**494 Management Research (4)**

Prereq: 12 hrs of management courses. Practical application of research methods in behavioral sciences to management problems, emphasizing research available and its use in decision making and in solving managerial problems.

**496 Organizational Behavior – Managing Change (4)**

Prereq: 440 and 445 or perm. Planning and implementing change in organizational settings.

**497 Independent Research (1-5)**

Prereq: perm. Research in selected fields of management and organizational behavior under direction of faculty member

management, marketing research and consumer behavior, and marketing analysis and management.

In addition to the B.B.A. degree requirements, a student majoring in marketing must complete 32 hours of marketing courses at the 300 or 400 level including 463.

**101 Consumer Survival in the Marketplace (4)**

How consumer can adapt himself or herself to modern marketing environment so as to optimize satisfaction derived from spending his or her money.

**301 Marketing Principles (4)**

Prereq: ECON 102 or 302 and jr rank (3rd qtr soph if marketing major). Principles of marketing management with emphasis on practices and problems of marketing manager; analysis of marketing environment; lectures supplemented with cases.

**303 Marketing Problems and Cases (4)**

Prereq: 301 and perm. Problems facing manufacturers and middlemen in marketing programs. Students will develop integrated marketing programs based on cases taken from actual business situations. Emphasis on development of analytical skills.

**360 Marketing for Nonprofit Organizations (4)**

Prereq: 301 or perm. Focuses application of basic marketing principles on organizations which have objectives other than achieving profit. Topics include orienting products to clients, building communication flows with and motivating both internal and external publics, application of marketing research and segmentation analysis, identification of publics and analysis of needs.

**404 Management of Distribution (4)**

Prereq: 301 and perm. Problems encountered by manufacturer in establishing and maintaining effective distribution system, concentrating on channel design and strategies.

**425 Industrial Marketing (4)**

Prereq: 301 and perm. Investigation and analysis of problems involved in marketing of industrial products.

**480 Mathematical Models of Marketing Analysis (4)**

Prereq: 479 and perm. Quantitative techniques that can be used in analysis of marketing problems and application of these methods to problem situations. (Taught on team basis with marketing and quantitative methods faculty.)

**485 Advanced Marketing Research (4)**

Prereq: 479 or perm. Continuation of beginning marketing research course with emphasis on topics not covered by 1st course. Example of topics which is not inclusive: (1) statistical procedures and their marketing applications, (2) brand positioning and market segmentation using marketing research techniques, and (3) managerial cases which use marketing research as focus.

**491 Seminar (3, 4 or 5)**

Prereq: perm. Selected topics of current interest in marketing area.

**497 Independent Research (1-4)**

Prereq: perm. Research in selected fields of marketing under direction of faculty member.

**498 Internship (1-4)**

Prereq: perm.

## MANUFACTURING TECHNOLOGY

See Industrial Technology

## MARKETING

The marketing major prepares students to become professional marketing personnel via available coursework in sales

## MATHEMATICS

The requirement for the A.B. or B.S. degree major in mathematics is 50 quarter hours in courses numbered 200 or above, 15 hours of which must be chosen from courses numbered 333 and above (exclusive of 490 and 491), all taken for grade. The requirement for a minor in mathematics is 30 quarter hours in mathematics courses numbered above 200, including ten quarter hours of courses numbered 333 or above.



When planning any program of study in mathematics, it is strongly recommended that the student consult an advisor from the department.

A student wishing to study mathematics strictly from a mathematician's viewpoint, in specially designed courses, should inquire about our tutorial program. (Standard courses listed in the bulletin are designed to serve many departments and purposes.)

A student studying mathematics with the view of eventually doing graduate work in mathematics is encouraged to pattern a program around the following suggested basic course selections: MATH 263A, B, C, 340, 360, 211 and/or 214, 411, 460A, B, C, and at least one (possibly both) of the sequences 413A, B or 480A, B. For more detailed information and recommendations, the student should consult the College of Arts and Sciences Special Curricula section of this catalog.

A student wishing to use mathematics training in business and industry may elect to pursue studies in applied mathematics. Such a course of study may terminate in a B.S. degree or be continued into graduate studies. For more detailed information and some example programs of study, the student should consult the College of Arts and Sciences Special Curricula section of this catalog.

A student preparing for teacher certification should seek a broad background in various areas of mathematics, including algebra, analysis, geometry, computer science, probability, and statistics. In addition to the specified course requirements listed by the College of Education, suggested electives include: MATH 211, 360, 333, 300, 406, 207, and 250B. Consult an advisor in the Mathematics Department or College of Education for additional information.

Courses labeled 151 or below (with the exception of MATH 116 or 118 when taken as a prerequisite for MATH 263B) are not open for credit to students who have passed a mathematics course with a number higher than 151. MATH 113, 116, 117, 118 and 130 are essentially remedial precalculus courses. Before enrolling in MATH 163A or 263A, it is recommended that the student take a self-administered test available at the Mathematics Department or at University College to decide if any of these remedial courses are needed.

### 101 Basic Mathematics (4)

Prereq: placement or perm. A fundamental course in arithmetic and elementary algebra for students with unusually weak backgrounds. Credit applies as hours toward graduation but meets no other college requirement. No credit to the student who has passed a higher level mathematics course.

### 113 Algebra (5) (1M)

Prereq: at least 1 yr h.s. algebra. Review topics in high school algebra including linear and quadratic equations and inequalities, factoring, fractions, radicals and exponents, and simple graphing techniques.

### 116 Analytic Trigonometry (2)

Prereq: 2 yrs h.s. math. Trigonometric functions and their properties, identities, equations, and applications.

### 117 Elementary Applied Mathematics (4) (1M)

Prereq: at least 1 yr h.s. algebra. Topics from intermediate algebra such as functions and graphs, systems of linear equations, 3x3 determinants, factoring, quadratic equations and inequalities, exponents and radicals, and logarithms. Application of mathematical concepts and skills to developing mathematical models and problem solving emphasized. Credit not awarded for this course and 113.

### 118 Elementary Applied Mathematics (4) (1M)

Prereq: 117 or 2 yrs h.s. algebra. Topics from trigonometry and analytic geometry including trigonometric functions and their graphs, vectors and oblique triangles, trigonometric identities,  $j$ -operator, straight lines, conic sections, and translation of axes. Application of mathematical skills to developing mathematical models and problem solving emphasized. Credit not awarded for this course and 116.

### 120 Elementary Topics in Mathematics (5) (1M)

Prereq: 2 yrs h.s. math. Emphasis on number system and related properties. Primarily for majors in elementary education

and related fields. Does not apply to Arts and Sciences natural science requirement.

### 121 Elementary Topics in Mathematics (5) (1M)

Prereq: 2 yrs h.s. math. Topics include algebra, geometry, statistics, and probability. Primarily for majors in elementary education and related fields. 120 is not a prerequisite. Does not apply to Arts and Sciences natural science requirement.

### 130 Plane Analytic Geometry (3)

Prereq: 113, or equiv. May be taken concurrently with 116. Straight lines, circles, conic sections, functions, and graphing of functions studied.

### 151 Mathematics: An Everyday Tool (5) (1M)

Prereq: 2 yrs h.s. math. Applications of elementary math to day-to-day problems. Special emphasis on consumer math such as compound interest, mortgages, and installment buying. Elementary probabilities and statistics with applications. Scientific calculator required. Does not apply to Arts and Sciences natural science requirement.

### 163A Introduction to Calculus (4) (2N)

Prereq: 2 yrs h.s. math or 113 or equiv. Presents survey of basic concepts of calculus. For students who want introduction to calculus but do not need depth of 263 ABC. Note: Not open for credit to students who have credit for 263A. Students strongly urged to come to department office for advice in attempting transfer from 163 sequence to 263 sequence.

### 163B Introduction to Calculus (4) (2N)

Prereq: 163A. Continuation of 163A. Note: Not open for credit to students who have credit for 263B. Students strongly urged to come to department office for advice in attempting transfer from 163 to 263 sequence.

Note: Following 3 courses (207, 214, 230) primarily intended for prospective mathematics majors to introduce them to some mathematical theory at elementary level.

### 207 Introduction to Number Theory (5)

Prereq: 4 yrs h.s. math or equiv. Investigation of properties of natural numbers. Topics include mathematical induction, prime factorization, Euclidean algorithm, Diophantine equations, congruences, and divisibility.

### 211 Elementary Linear Algebra (5) (2N)

Matrix algebra, determinants, elementary row operations, solutions of linear systems, vector spaces, linear independence of vectors and bases, the matrix of a linear mapping, eigenvalues and eigenvectors, diagonalization. Though computational techniques are included, course intended as careful introductory treatment of vector spaces and matrix theory. No credit to students who have completed 410.

### 214 Elementary Abstract Algebra (5)

Mappings. Relations. Definitions and examples of groups. Groups of rotations. Cyclic groups. Lagrange's Theorem. Fields. Polynomials over fields.

### 230 Foundations of Geometry (5)

Introduction to axiomatic mathematics via 2 finite geometries and variety of interpretive models. Develops plane Euclidean and non-Euclidean geometries in rigorous fashion from modified Hilbert axiom system.

### 250A Finite Mathematics (5) (2N)

Prereq: 2 yrs h.s. math. Set theory; logic; vectors and matrices; linear programming. Not counted toward math minor or major.

### 250B Finite Mathematics (5) (2N)

Prereq: 2 yrs h.s. math. Elementary probability and statistics. 250A not a prerequisite.

### 263A Analytic Geometry and Calculus (5) (2N)

Prereq: 118, or 4 yrs h.s. math including trigonometry and analytic geometry, or perm of math department. 263A-B-C is a basic introduction to calculus with emphasis on techniques and their applications. Topics covered: functions and limits, differentiation and integration, analytic geometry, vectors, transcendental functions, polar coordinates, solid analytic geometry, partial differentiation, multiple integrals, infinite series. NOTE:



Not open for credit to students who have credit for both 163A and B. Students strongly urged to come to department office for advice in attempting a transfer from 163 sequence to 263 sequence.

**263B Analytic Geometry and Calculus (5) (2N)**  
Prereq: 263A or 163B or equiv. and a course in trigonometry. Continuation of 263A. See 263A for description.

**263C Analytic Geometry and Calculus (5) (2N)**  
Prereq: 263B. Continuation of 263A-B. See 263A for description.

**297T Mathematics Tutorial (1-15)**  
(fall) Special program for students of unusual ability.

**298T Mathematics Tutorial (1-15)**  
Prereq: 297T. (winter) Continuation of 297T. See 297T for description.

**299T Mathematics Tutorial (1-15)**  
Prereq: 298T. (spring) Continuation of 297T and 298T. See 297T for description.

**300 History of Mathematics (5)**  
Prereq: math major, jr, sr rank. Survey of main lines of mathematical development in terms of contributions made by great mathematicians.

**320 Teaching of Mathematics in Secondary School (5)**  
Prereq: 214, 230 and jr rank. Orientation to professional mathematics education and topics related to teaching of mathematics on secondary school level. Not counted toward math major or minor.

**333 Elementary Projective Geometry (5)**  
Prereq: 230 or perm. Topics in projective geometry.

**340 Differential Equations (5)**  
Prereq: 263B. Ordinary differential equations and related topics.

**343 Mathematical Modelling (5)**  
Prereq: 163A, B and 250A, B, or perm. (spring) Construction and analysis of mathematical models and their use in investigation of physical, chemical, biological, social, and environmental problems. Models which use only elementary mathematical concepts will be stressed.

**360 Intermediate Analysis (5)**  
Prereq: 263C. Rigorous study of limits, continuity, and differentiability of functions of 1 real variable.

**397T Mathematics Tutorial (1-15)**  
(fall) Special program for students of unusual ability.

**398T Mathematics Tutorial (1-15)**  
Prereq: 397T (winter) Continuation of 397T. See 397T for description.

**399T Mathematics Tutorial (1-15)**  
Prereq: 398T (spring) Continuation of 397T and 398T. See 397T for description.

**406 Foundations of Mathematics (5)**  
Introductory topics in set theory and axiomatic development of real number system.

**407 Number Theory (5)**  
Prereq: 207, 263C. Topics in number theory.

**410 Matrix Theory (5)**  
Prereq: 263C. Matrix algebra, determinants, solutions of linear systems, eigenvalues and eigenvectors, matrix functions and applications to differential equations, Jordan canonical form, inner products, diagonalization, and generalized inverses. Intended primarily for students interested in applied mathematics, engineering, and sciences.

**411 Linear Algebra (5)**  
Prereq: 211 or 410 (fall) Vector spaces and linear transformations, characteristic values, quadratic forms, dual spaces, normal forms, and Jordan canonical form.

**413A Introduction to Modern Algebra (5)**  
Prereq: 263C (211 or 411 recommended) (winter) Groups,

permutation groups, subgroups, normal subgroups, quotient groups. Conjugate classes and class equation formula and its applications to p-groups. Fundamental theorem on homomorphisms.

**413B Introduction to Modern Algebra (5)**  
Prereq: 413A. (spring) Fundamental theorem on finite abelian groups and its consequences. Cauchy theorem and first Sylow theorem. Polynomial rings. UFD and Euclidean domains. Maximal ideals. Algebraic extensions and splitting fields. Fundamental theorem of Galois theory.

**439 Topics in Geometry (1-5)**  
Prereq: perm. When demand is sufficient course in some phase of geometry will be offered under this number. May be repeated for credit up to 10 hrs.

**440 Vector Analysis (5)**  
Prereq: 263C. Vector algebra and its applications. Vector calculus and space curves. Scalar and vector fields, gradient, divergence, curl, and Laplacian. Line and surface integrals, Divergence theorem, Stokes' theorem, and Green's theorem.

**441 Fourier Analysis and Partial Differential Equations (5)**  
Prereq: 340. Representation of functions as sums of infinite series of trigonometric functions, Bessel functions, Legendre polynomials, or other sets of orthogonal functions. Use of such representations for solution of partial differential equations dealing with vibrations, heat flow, and other physical problems.

**442 Theory of Linear Programming and Nonlinear Programming (5)**  
Prereq: 211 or 410, computer programming experience is desirable. Minimization of functions subject to equality and inequality constraints, Kuhn-Tucker theorem, algorithms for function minimization, such as steepest descent and conjugate gradient and penalty function methods. (Not a course in computer programming.)

**443 Mathematical Modelling and Optimization (5)**  
Prereq: 340, 211 or 410. Investigation of differential equation models of physical, social, and biological phenomena by qualitative analysis. Optimal criteria incorporated to convert models to optimal control problems. Pontryagin's maximal principle used to find analytic solutions. Numerical solutions to optimal control problems also treated.

**444 Introduction to Numerical Analysis (5)**  
Prereq: 263C, 340, and CS 201. Polynomial interpolation and approximation; numerical integration and differentiation; numerical solution to differential equations; numerical methods for matrix inversion, determination of eigenvalues, and solutions of systems of equations.

**450A Theory of Statistics (5)**  
Prereq: 263C (Some students find 250B also helpful). (fall) Probability distribution of 1 and several variables; conditional probability and independence; moment generating functions; central limit theorem.

**450B Theory of Statistics (5)**  
Prereq: 450A (winter) Sampling theory, estimation of parameters, confidence intervals, analysis of variance, correlation, and testing of statistical hypotheses.

**450C Theory of Statistics (5)**  
Prereq: 450B (spring) Topics in statistics.

**460A Advanced Calculus (5)**  
Prereq: 360 (fall) Critical treatment of functions of single variable. Emphasis on topics not treated in 360, such as compactness, nested intervals, deeper properties of continuous functions, Riemann-Stieltjes integration, and uniform convergence.

**460B Advanced Calculus (5)**  
Prereq: 460A (winter) Primarily devoted to study of differential calculus in  $n$ -space. Topics include review of inner product spaces and linear transformations, elementary topology of the plane, limits and continuity of functions of several variables, directional derivation, differential, chain rule, and implicit function theorem.

**460C Advanced Calculus (5)**

Prereq: 460B. (spring) Primarily devoted to study of integral calculus in  $n$ -spaces. Riemann-Darboux integral, Jordan content, iterated integrals, transformation of integrals, differential forms and their integrals.

**470 Applied Complex Variables (5)**

Prereq: 263C. Analytic and harmonic functions, Cauchy integral and residue theorems, contour integration, Taylor and Laurent expansions, conformality, and linear transformations with applications.

**480A Elementary Point Set Topology (5)**

Prereq: 360. (winter) Topology of Euclidean spaces and general metric spaces.

**480B Elementary Point Set Topology (5)**

Prereq: 480A. (spring) Introduction to general topological spaces.

**490 Selected Topics in Mathematics (1-5)**

Prereq: perm of instructor and chairman. When demand is sufficient, course in some phase of mathematics will be offered under this number. (May be repeated for credit.)

**491 Studies in Mathematics (1-15)**

Prereq: 6 hrs of 400-level courses, sr rank or jr rank in Honors Tutorial College, or perm of chairman and instructor. Selected topics in mathematics studied under guidance of instructor particularly interested in field. (May be repeated for credit.)

**497T Mathematics Tutorial (1-15)**

(fall) Special program for students of unusual ability.

**498T Mathematics Tutorial (1-15)**

Prereq: 497T. (winter) Continuation of 497T. See 497T for description.

**499T Mathematics Tutorial (1-15)**

Prereq: 498T. (spring) Continuation of 497T and 498T. See 497T for description.

## MEDICAL TECHNOLOGY

See Zoology.

## MENTAL HEALTH TECHNOLOGY

All of these courses must be taken in sequence and are available only to those students who have been admitted to the A.A.S. program in mental health technology. Special permission may be obtained from program director for non-MHT majors to take some courses.

**101 Introduction to Mental Health Work (3)**

Prereq: admission to program. Orientation to field of mental health and human service. History, definitions, current concepts, and roles of various workers in field reviewed and discussed. Aspects of work with patients and agencies treated through field trips.

**112 The Helping Relationship (3)**

Prereq: 101. Didactic and experiential study of use of 2-person relationship to promote personal growth and development of clients. Self-awareness, identification of basic helping skills, and practice in application of skills emphasized.

**122 Introduction to Social Casework (3)**

Prereq: 112. Covers theory and methods of case management, interviewing and counseling techniques, skills in problem-solving, referrals, advocacy, and case recording. Provides direct contact with patients under supervision of trained personnel.

**201 Activity Therapies (3)**

Prereq: 122. Survey of objectives, materials, and techniques of various ancillary therapies including art, music, recreation, psychodrama, horticulture, bibliotherapy, and dance therapy. Students become familiar with organization, content, and application of activity programs for various age levels in both hospital and agency settings.

**221 Practicum in Mental Health I (10)**

Prereq: 201. First of 3-qr sequence including 16 hrs per wk of work in an agency under supervision of professional staff, and an on-campus class and laboratory. Students expected to assume increasing responsibility in direct service to clients. Introductions to gestalt therapy, reality therapy, transactional analysis, and rational emotive therapy presented.

**222 Practicum in Mental Health II (10)**

Prereq: 221. Continuation of field placement, class, and laboratory. Class topics include behavior management techniques, assertiveness training, and daily living skills.

**223 Practicum in Mental Health III (10)**

Prereq: 222. Continuation of field placement, class, and laboratory. Students expected to begin functioning as entry level practitioners. Class topics include use of psychotropic medication, alcohol and drug abuse, and special topics.

**231 Seminar in Mental Health (3)**

Prereq: 222. Emphasis on development of skills in case presentation, case management, and interaction with other professionals involved in treatment process. Includes development of skills in utilizing appropriate community resources. Focus on working with children, family therapy, and crisis intervention.

## MILITARY SCIENCE

The Army Reserve Officers' Training Corps (ROTC) program offers two curricula of military science instruction leading to commission as a second lieutenant in the U.S. Army. The military science program is an elective program open to both men and women. Students participating in this program take a military science course along with the normal courses leading to a baccalaureate degree in a degree-granting field. The purpose of the program is to place outstanding young men and women in the active Army and the Army reserve component forces (National Guard and U.S. Army Reserve). In selected cases students are awarded Regular Army commissions.

There are two programs of instruction: the traditional four-year ROTC program and a special late-entry two-year program.

The four-year program consists of a basic course and an advanced course. The basic course requires successful completion of military science 100- and 200-level courses during the freshman and sophomore years. The advanced course requires successful completion of military science 300- and 400-level courses during the last two academic years. Average contact time between students and instructors is two hours of classroom instruction each week and approximately 20 hours of leadership laboratory each quarter. No military obligation is incurred for the first two years of the program. Following completion of the first two years, qualified students are accepted for the advanced program by entering the U.S. Army Reserve and signing an ROTC contract which obligates the student to complete the program of instruction and accept a commission in the U.S. Army, if qualified. Each advanced-course student receives a subsistence allowance of \$100 each academic month for the two school years in which he or she is enrolled in the advanced course. All advanced-course students must attend a five-week summer training camp. (See MSC 330 for complete camp description.) Airborne training is also offered for qualified students at the Army Airborne School at Fort Benning, Georgia.

The two-year ROTC program is offered for students who transfer from colleges which do not offer ROTC, or students whose academic courses do not permit military science during their first two academic years. Eligibility for the two-year program is determined by successful completion of a special six-

week summer basic camp. Attending the basic camp does not require the student to continue in the program. Upon successful completion of the basic camp, students are eligible to enter the advanced ROTC course, if accepted by the professor of military science. This program is open to both women and men. Applicants should apply during February and March of the school year. Applicants must have two academic years remaining at Ohio University. Part or all of that time may be at the graduate level. (See MSC 230 for complete course description.)

Students with honorable prior military service of one year or more in any of the armed forces may be eligible to enter directly into the advanced course without attending the Basic Camp or taking the freshman or sophomore ROTC courses.

Students with two or more years of junior ROTC at the high school level may be eligible to receive placement credit for part or all of the basic (freshman and sophomore level) ROTC courses.

**Regional Campus Student.** Any student from the five Ohio University regional campuses may participate in the two-year program option by attending advanced course classes (300, 400 level) at the Athens campus. A special section of each class is offered on Friday to enable students to drive to Athens for the scheduled class, leadership lab, and related activities.

### 101 Introduction to Military Science (2)

Broad overview of military science curriculum, role of Army officer, commissioning, and career programs of military. Student will take Army physical fitness test and fire small-bore military rifle.

### 102 Leadership and Management I (2)

Principles and techniques of leadership including basic qualities of leader and special problems of military leadership. Psychological, physiological, and sociological factors affecting human behavior and proven techniques of military leadership.

### 103 Basic Map Reading and Orienteering (2)

Fundamental map reading and orienteering techniques with emphasis on development of land navigation skills through practical exercises in field.

### 201 Advanced Map Reading (2)

Prereq. 103 or equiv. Continuation of 103. Advanced map reading/land navigation and aerial photograph interpretation techniques as applied to military maps and aerial photographs. Additional development of orienteering skills. Includes 4-6 hrs of practical exercises in field situation, and review of basic map reading skills.

### 202 Methods of Military Instruction (2)

Educational psychology and practical application of techniques in planning and presenting instruction, with emphasis on military methods.

### 203 Leadership and Management II (2)

Interdisciplinary approach to study of organizational leadership and serves as major step in student's education in leadership process. Provides basis for understanding relationship of individual differences and leadership process, group dynamics and their relationship to leadership process, and impact of leader's behavior on leadership process.

### 230 Army ROTC Basic Camp (0)

6-wk summer training camp that qualifies students for direct entry to advanced ROTC course. Covers military-oriented subjects which prepare students for jr and sr level military science courses. Instruction in role and mission of Army, map reading/land navigation, rifle marksmanship, basic leadership techniques, physical training/marches, individual and unit tactics, communications, first aid, drill, parades and ceremonies, military courtesy and traditions, and rappelling. Camp is rigorous and demanding. Applications accepted from sophs, jrs, srs, and grad students with 2 academic yrs remaining. Conducted at Fort Knox, KY during a 6 wk period in June, July, and August. Transportation to camp and return transportation to home of record paid by Army. Uniforms, meals, and housing provided by Army. Students may apply for special 2 yr ROTC scholarship at camp. Participants paid by Army.

### 301 Introduction to Tactics (2)

Small unit tactics, emphasizing importance of organization of basic military teams and their employment.

### 302 Military Justice (2)

Orientation of military justice system as outlined within U.S. Uniform Code of Military Justice. Examines military law, discipline, behavior modification, and nonpunitive actions as management tools of military leader. In addition, other aspects of unit administration (supply, maintenance, and personnel affairs) introduced.

### 303 Platoon Level Tactics (2)

Operational methods, leadership techniques, organization, weapons systems, and communications systems used in tactical employment of combat units. Emphasis on offensive aspects of military operations.

### 310A Advanced Leadership Laboratory (0)

Prereq: enrollment in military science advanced course. (fall) Development of proficiency and leadership potential by participation in planning and conducting tactical training, drill and ceremonies, and other military subjects.

### 310B Advanced Leadership Laboratory (0)

Prereq: enrollment in advanced course. (winter) Continuation of 310A. See 310A for description.

### 310C Advanced Leadership Laboratory (0)

Prereq: 310A. (spring) Continuation of 310A-B. See 310A for description.

### 330 Army ROTC Advanced Camp (0)

Prereq: enrollment in Army ROTC commissioning program. 6-wk field training session conducted at Army installation; normally scheduled between jr and sr yrs. Includes instruction in techniques of leadership and basic military skills. Students receive extensive evaluations based on performance in various leadership positions at camp. Transportation to and from camp paid by Army. Uniforms, meals, and housing at camp provided by Army. Students receive approximately \$500 military pay at camp.

### 401 U.S. Military History I (2)

Prereq: HIST 211 or 212 or perm. Factors contributing to development of military art through selected campaigns and battles from American Revolutionary War period up to WW I. Emphasis on development and application of principles of war as recognized by the U.S.

### 402 U.S. Military History II (2)

Prereq: HIST 212 or 213 or perm. Analysis and evaluation of military campaigns from WW I through Vietnam. Specific campaigns and battles studied with emphasis on application and influence of principles of war.

### 403 World Change (2)

United States in contemporary world scene. Multidiscipline course with guest lecturers from broad variety of University departments. Includes study of other major actors in world arena.

### 410A Advanced Leadership Laboratory (0)

Prereq: enrollment in military science advanced course 2nd yr. (fall) Practical experience as cadet officer in conduct of drill and ceremonies; training management, maintaining discipline, and demonstration of morale and range of factors which affect morale.

### 410B Advanced Leadership Laboratory (0)

Prereq: 2nd yr advanced course. (winter) Leadership seminar and service orientation.

### 410C Advanced Leadership Laboratory (0)

Prereq: 410A (spring) Continuation of 410A-B. See 410A for description.

## MUSIC

### Applied Music

**Music Education****Music History and Literature****Music Theory and Composition****Music Therapy****Independent Studies in Music****Applied Music**

Fee for private instruction for all applied music (piano, voice, organ, strings, woodwinds, brass, percussion), \$12 per quarter hour.

Note: A description of the proficiency requirements for applied music may be obtained from the School of Music.

**090 Performance Laboratory (0)**

Required each qtr of all undergraduate music majors and students enrolled in 101-102-103.

**141 Class Piano (2)**

Prereq: perm; music majors only. *M. Stewart.*

**141A Class Piano (2) (2H)**

Prereq: perm; for nonmusic majors. *G. Berenson.*

**142 Class Piano (2)**

Prereq: perm; 141; music majors only. *M. Stewart.* Continuation of 141.

**142A Class Piano (2) (2H)**

Prereq: perm; 141B; for nonmusic majors. *G. Berenson.* Continuation of 141A.

**143 Class Piano (2)**

Prereq: perm; 142; music majors only. *M. Stewart.* Continuation of 141 and 142.

**143A Class Piano (2) (2H)**

Prereq: perm; 142B; for nonmusic majors. *G. Berenson.* Continuation of 142A.

**147 Class Voice (2)**

Prereq: perm. *M. Stephenson.* For students enrolling in beginning voice.

**147A Class Voice (2) (2H)**

Prereq: For nonmusic majors; perm. (fall, winter) Beginning instruction in voice for nonmusic majors.

**148 Class Voice (2)**

Prereq: 147. *M. Stephenson.* Continuation of 147. See 147 for description.

**148A Class Voice (2) (2H)**

Prereq: perm; 147A; for nonmusic majors. (winter) Continuation of 147A. See 147A for description.

**149 Class Voice (2)**

Prereq: 148. *M. Stephenson.* Continuation of 147 and 148. See 147 for description.

**149A Class Voice (2) (2H)**

Prereq: 148A; for nonmusic majors. (spring) Continuation of 148A. See 148A for description.

**162 Classical Guitar (2)**

Prereq: perm. Introduction to music and technique of classical guitar including solo and accompaniment styles. Nylon-string guitar preferred but not required. No previous training necessary.

**162A Jazz Guitar (2)**

Prereq: perm. Introduction to playing jazz guitar as harmonic-rhythmic and solo instrument. Emphasis on reading and improvising. No previous training necessary.

**241 Class Piano (2)**

Prereq: music majors only; 143 with minimum grade of C; perm. *M. Stewart.*

**241A Class Piano (2) (2H)**

Prereq: 143A or perm; for nonmusic majors. *G. Berenson.*

**242 Class Piano (2)**

Prereq: 241 or perm; for music majors only. *M. Stewart.* Continuation of 241.

**242A Class Piano (2) (2H)**

Prereq: 241A or perm; for nonmusic majors. *G. Berenson.* Continuation of 241A.

**243 Class Piano (2)**

Prereq: 242 or perm; for music majors only. *M. Stewart.* Continuation of 241 and 242.

**243A Class Piano (2) (2H)**

Prereq: 242A or perm; for nonmusic majors. *G. Berenson.* Continuation of 242A.

**244 Varsity Band (1)**

Prereq: perm; audition. *R. Socciarelli.*

**244A Marching Band (2)**

Prereq: perm (audition). *R. Socciarelli.*

**244B Wind Ensemble (2) (2H)**

Prereq: perm. (audition). *R. Socciarelli.*

**244C Symphonic Band (1) (2H)**

Prereq: perm (audition). *R. Socciarelli.*

**244D University Band (1)**

Prereq: nonmusic majors only, audition. *R. Socciarelli.*

**245 Choral Union (1) (2H)**

Prereq: perm (audition). *I. Zook.*

**246 Symphony Orchestra (2) (2H)**

Prereq: perm (audition). *J. Henry.*

**249 Brass Choir (1) (2H)**

Prereq: perm (audition). *W. Brophy.*

**250 University Singers (2) (2H)**

Prereq: perm (audition). *I. Zook.*

**250A Show Choir (1)**

Prereq: perm (audition). *C. Powell.*

**251 Chamber Orchestra (1) (2H)**

Prereq: perm (audition). *J. Henry.*

**252 Opera Theater (1-4) (2H)**

Prereq: perm (audition). *E. Payne.*

**253 Jazz Ensemble (1) (2H)**

Prereq: perm (audition). *E. Bastin.*

**254A Chamber Music, Strings (1) (2H)**

Prereq: strings only; perm. Participation in playing of standard string chamber literature.

**254B Chamber Music, Woodwinds (1) (2H)**

Prereq: woodwinds only; perm. Participation in playing of standard woodwind chamber literature.

**254C Chamber Music, Brass and Percussion (1) (2H)**

Prereq: brass and percussion only; perm. Participation in playing of standard brass and percussion chamber literature.

**254D Chamber Music, Piano (1) (2H)**

Prereq: piano only; perm. Participation in playing of standard piano chamber literature.

**254E Chamber Music, Mixed (1) (2H)**

Prereq: perm, audition. (winter, spring) New music ensemble. Participation in performing contemporary chamber music for various ensembles of instruments and voices.

**255 Trombone Choir (1) (2H)**

Prereq: perm (audition). *R. Smith.*

- 256 Percussion Ensemble (1)** (2H)  
Prereq: perm (audition). *G. Remonko.*
- 257 Collegium (1)** (2H)  
Prereq: perm, audition. *R. Wetzel.*
- 340 Voice (1-6)** (2H)  
Prereq: perm. *N. Beebe, E. Payne, M. Stephenson, I. Zook.*
- 341 Piano (1-6)** (2H)  
Prereq: perm. *G. Berenson, E. Jennings, M. Stewart, R. Syracuse.*
- 342 Harp (1-6)** (2H)  
Prereq: perm. *L. Jennings.*
- 342A Harp Class (1)**  
Prereq: perm. *L. Jennings.*
- 343 Organ (1-6)** (2H)  
Prereq: perm. *E. Wickstrom.*
- 344 Violin (1-6)** (2H)  
Prereq: perm. *H. Beebe.*
- 345 Viola (1-6)** (2H)  
Prereq: perm. *H. Beebe.*
- 346 Violoncello (1-6)** (2H)  
Prereq: perm. *L. Conkling.*
- 347 Double Bass (1-6)** (2H)  
Prereq: perm. *L. Conkling.*
- 348 Flute (1-6)** (2H)  
Prereq: perm. *K. Andrews.*
- 349 Oboe (1-6)** (2H)  
Prereq: perm. *H. Niblock.*
- 350 Bassoon (1-6)** (2H)  
Prereq: perm. *H. Robison.*
- 351 Clarinet (1-6)** (2H)  
Prereq: perm. *D. Lewis, H. Robison.*
- 352 Alto Saxophone (1-6)** (2H)  
Prereq: perm. *A. Reilly.*
- 353 Trumpet (1-6)** (2H)  
Prereq: perm. *E. Bastin.*
- 354 Horn (1-6)** (2H)  
Prereq: perm. *W. Brophy.*
- 355 Euphonium (1-6)** (2H)  
Prereq: perm. *R. Fink, R. Smith.*
- 356 Trombone (1-6)** (2H)  
Prereq: perm. *R. Fink, R. Smith.*
- 357 Tuba (1-6)** (2H)  
Prereq: perm. *R. Fink, R. Smith.*
- 358 Percussion (1-6)** (2H)  
Prereq: perm. *G. Remonko.*
- 359 Class Piano (2)**  
Prereq: 243 with C or higher or perm. *M. Stewart.*
- 360 Class Piano (2)**  
Prereq: 359 or perm. *M. Stewart.*
- 361 Class Piano (2)**  
Prereq: 360 or perm. *M. Stewart.*
- 372 Advanced Instruction in Functional Piano (2)**  
Prereq: jr level in piano or perm. (fall) Instruction to provide greater facility in handling basic functional keyboard skills. Emphasis on transferring these skills to actual situations encountered as music educators and/or music therapists.
- 373 Advanced Instruction in Functional Piano (2)**  
Prereq: 372 or perm. (winter) Continuation of 372. See 372 for description.
- 374 Advanced Instruction in Functional Piano (2)**  
Prereq: 373 or perm. (spring) Continuation of 372 and 373. See 372 for description.
- 451 Accompanying (1, max 3)**  
*E. Jennings.* Basic problems in accompanying vocalists and instrumentalists — rehearsal techniques, ensemble, pedaling, balance, etc. May be repeated.
- 452 Piano Pedagogy (2)**  
(fall) Provides creative teaching strategies for piano teacher. Teaching philosophies, objectives, and procedures discussed and applied to group and private piano instruction. Includes teaching techniques for working with students of all ages and levels.
- 453 Piano Pedagogy (2)**  
Prereq: 452. (winter) Continuation of 452. See 452 for description.
- 454 Piano Pedagogy (2)**  
Prereq: 453. (spring) Continuation of 452 and 453. See 452 for description.
- 455 Conducting (3)**  
Prereq: 203, 205. *J. Henry, C. Powell.* Basic beat patterns, technique of baton, and use of left hand. Experience in conducting choral and small instrumental ensembles in works suitable for school groups.
- 456 Choral Conducting (3)**  
Prereq: 206, 455. *C. Powell.* Specialized conducting techniques for choral groups, including experience in conducting works suitable for high school and college groups.
- 457 Instrumental Conducting (3)**  
Prereq: 206, 455. *R. Socciarelli.* Experience in conducting from full score; includes band and orchestral works suitable for high school groups.
- 458A Solo Repertoire of String Instruments (1)**  
Prereq: 323, perm. (spring) Survey of student's major performance instrument literature.
- 458B Solo Repertoire of Woodwind Instruments (1)**  
Prereq: 323; perm. Survey of student's major performance instrument literature.
- 458C Solo Repertoire of Brass and Percussion Instruments (1)**  
Prereq: 323; perm. (spring) Same as 458B.
- 458D Solo Repertoire of Vocal Music (1)**  
Prereq: 323; perm. (fall, winter, spring) Same as 458B.
- 458E Solo Repertoire of Piano Music (1)**  
Prereq: 323; perm. Same as 458B.
- 459A String Instrument Pedagogy (2)**  
Prereq: perm. (winter) Teaching techniques of string instruments and use of selected materials for various levels of ability. Includes practical experience in teaching.
- 459B Woodwind Instrument Pedagogy (2)**  
Prereq: perm. Teaching techniques of woodwind instruments and use of selected materials for various levels of ability. Includes practical experience in teaching.
- 459C Brass and Percussion Instrument Pedagogy (2)**  
Prereq: perm. (spring) Teaching techniques of brass and percussion instruments and use of selected materials for various levels of ability. Includes practical experience in teaching.
- 459D Vocal Pedagogy (2)**  
Prereq: perm. Teaching techniques of voice and use of selected materials for various levels of ability. Includes practical experience in teaching.
- 459E Class Piano Pedagogy (2)**  
Prereq: perm. *M. Stewart.* Techniques of teaching class piano and use of selected materials for various levels of ability. Includes practical experience in teaching.

**497 Recital (0)**

Prereq: perm, jr and sr only. For jr or sr planning to present a public recital.

## Music Education

**160 Music Fundamentals (3)**

For elementary education majors only.

**161 Music for the Classroom Teacher (3)**

Prereq: 160 with minimum grade of C. Methods of teaching elementary music. For elementary education majors only.

**261 String Methods and Materials (2, max 6)**

Prereq: soph rank in music education/music therapy. Instruction in stringed instruments with emphasis on teaching techniques, methods and materials.

**262 Music in Early Childhood (3)**

Prereq: EDEL 200 and MUS 160 or perm. Methods and materials for esthetic development of preschool children. Exploration of reading readiness and vocal, rhythmic, listening activities.

**263 Wind and Percussion Methods and Materials (2, max 12)**

Prereq: soph rank in music education/music therapy. Instruction in wind and percussion instruments with emphasis on teaching techniques, methods, and materials.

**363 Methods and Materials of Instrumental Music (3)**

Prereq: jr rank in music education/music therapy. Study of procedures for organization, implementation, and administration of instrumental music and survey of materials used in teaching instrumental music in public schools.

**364 Secondary School Vocal Techniques and Materials (3)**

Prereq: jr rank in music education/music therapy. (winter) Literature and rehearsal techniques for high school choral groups.

**365 Secondary School Vocal Techniques and Materials (3)**

Prereq: 364 with minimum grade of C. (spring) Continuation of 364. See 364 for description.

**366 Teaching of Music in the Elementary Grades (3)**

Prereq: jr rank in music education/music therapy. (winter) Materials and methods for elementary music. For music majors only.

**367 Materials and Trends in Elementary Music Teaching (3)**

Prereq: 366 with minimum grade of C. (spring) Continuation of 366.

**464 Marching Band Techniques (3)**

Prereq: sr rank in music education/music therapy. (spring) Techniques for preparation of high school and college marching band performance.

**468 General Music in the Junior High School (3)**

Prereq: sr rank in music education/music therapy, perm. (fall) Materials and methods; listening program; changing voice.

**469 Vocal Methods and Materials for the Junior and Senior High School (4)**

Prereq: sr rank in music education, instrumental emphasis only. Organization, methods, and materials for secondary general music and vocal ensembles.

**476A Music Clinic - Workshop (1-4)**

Prereq: sr rank in music education/music therapy. (summer) May be repeated for credit, but credit may be applied to degree electives only once.

**476B Elementary Music Workshop (1-4)**

Prereq: sr rank in music education/music therapy. (summer)

May be repeated for credit, but credit may be applied to degree electives only once.

## Music History and Literature

**120 Introduction to Music Literature (2) (2H)**

Prereq: for nonmusic major. Development of listening skills for understanding elements of musical style in historical perspective and significance of music as fine art.

**121 Introduction to Baroque and Classic Music (2)(2H)**

Prereq: 120 or perm, for nonmusic majors. (fall) Selected works from music of Baroque and Classic periods.

**122 Introduction to the Music of the Romantic Period (2) (2H)**

Prereq: 120 or perm, for nonmusic majors. (winter) Selected works from music of Romantic period.

**123 Introduction to 20th Century Music (2)**

Prereq: 120 or perm, for nonmusic majors. (spring) Selected works from music of 20th century.

**125 Introduction to Music History and Literature (3)**

Prereq: music major or perm. (fall) Survey for music majors of musical forms, styles, performance media (including jazz and non-Western) from Gregorian era to present.

**321 History and Literature of Music (3)**

Prereq: 103. History of music with survey of musical literature to 1600.

**322 History and Literature of Music (3)**

Prereq: 321. History of music with survey of musical literature, 1600-1750.

**323 History and Literature of Music (3)**

Prereq: 322. History of music with survey of musical literature, 1750 to present.

**421A The Literature of Vocal Music (3)**

Prereq: 323. (fall, 1981).

**421B The Literature of Piano Music (3)**

Prereq: 323. (winter, 1982).

**421C The Literature of Chamber Music (3)**

Prereq: 323. (spring, 1982).

**421D The Literature of Orchestral Music (3)**

Prereq: 323. (fall, 1982).

**421E The Literature of Organ Music (3)**

Prereq: 323. (winter, 1983).

**421F The Literature of Opera (3)**

Prereq: 323. (spring, 1983).

**427 Folk Music in the United States (3)**

Introduction to selected types of folk music in U.S.

**428 Jazz History (3)**

Study of various musics collectively known as jazz.

## Music Theory and Composition

**100 Introduction to Music Theory (3) (2H)**

Prereq: Nonmusic majors only. Introduction to staff, pitch and rhythmic notation, chords, pop music notation, etc.

**101 Music Theory (4)**

Prereq: music theory placement examination; music majors only. Melodic, harmonic, and rhythmic principles of music and its notation. 5 days per wk.

**101A Music Theory (3) (2H)**

Prereq: nonmajor only, ability to read music. Melodic, harmonic, and rhythmic principles of music and its notation.

**102 Music Theory (4)**

Prereq: 101. Continuation of 101. See 101 for description.

**102A Music Theory (3) (2H)**

Prereq: 101A. Continuation of 101A. See 101A for description.

**103 Music Theory (4)**

Prereq: 102. Continuation of 101 and 102. See 101 for description.

**201 Harmony (4)**

Prereq: music majors only, 103 (minimum grade of C). Harmonic and contrapuntal practices of 18th, 19th, and 20th centuries, including structural analysis of small and large forms.

**202 Harmony (4)**

Prereq: 201. Continuation of 201. See 201 for description.

**203 Harmony (4)**

Prereq: 201. Continuation of 201 and 202. See 201 for description.

**204 Dictation and Sight Singing (2)**

Prereq: music majors only, 103 (minimum grade of C or perm). Should be taken concurrently with 201.

**205 Dictation and Sight Singing (2)**

Prereq: 204 with a minimum grade of C. Continuation of 204.

**206 Dictation and Sight Singing (2)**

Prereq: 205. Continuation of 205. See 204 for description.

**304 Instrumentation (3)**

Prereq: 203. (fall) Technical characteristics of instruments of band and orchestra. Arranging for small ensembles.

**305 Orchestration I (3)**

Prereq: 304. (winter) Scoring for instrumental ensembles with emphasis on intra- and cross-choir scoring. Writing of transcriptions and score reductions.

**306 Orchestration II (3)**

Prereq: 305. (spring) Continuation of 305. See 305 for description.

**310 Composition I (2)**

Prereq: 203, 206. Introduction to 20th century compositional techniques. Writing smaller compositions.

**311 Composition II (2)**

Prereq: 310. Continuation of 310. See 310 for description.

**312 Composition III (2)**

Prereq: 311. Continuation of 310 and 311. See 310 for description.

**402 Styles I (3)**

Prereq: 203, 206 with minimum grade of C in each. (fall, 1982) Analysis of 15th century music.

**403 Styles II (3)**

Prereq: 203, 206 with minimum grade of C. (winter, 1983) Analysis of post-Romantic music.

**404 Styles III (3)**

Prereq: 203, 206 with minimum grade of C. (spring, 1983) Analysis of 20th century music.

**405 Jazz Harmony I (3)**

Prereq: 203, 206, perm, keyboard skills as determined by instructor. Harmonic vocabulary, notational systems, and chord progressions in traditional jazz.

**406 Jazz Harmony II (3)**

Prereq: 405. Continuation of 405. See 405 for description.

**407 Counterpoint I (3)**

Prereq: 203, 206. (fall, 1981) Analysis and composition in sacred style of 16th and 17th centuries.

**408 Counterpoint II (3)**

Prereq: 407. (winter, 1982) Analysis and composition of 18th century contrapuntal forms.

**410A Composition (2)**

Prereq: 312. Original instrumental and vocal compositions. Investigation of experimental compositional techniques.

**410B Composition (2)**

Prereq: 312, 413. Original composition in electronic medium for tape alone, live electronic instruments, or conventional instruments with electronic tape.

**411 Composition (2)**

Prereq: 410. Continuation of 410. See 410 for description.

**412 Composition (2)**

Prereq: 411. Continuation of 410 and 411. See 410 for description.

**413 Introduction to Electronic Music (2)**

Techniques, theories, and esthetics of electronic music. Development of skills as they apply to voltage-controlled synthesizer and tape splicing, and manipulation techniques.

**414 Senior Practicum in Theory (2)**

Prereq: sr rank. Preparation of theory major's senior project.

## Music Therapy

**181 Introduction to Music Therapy (3)**

(spring) Introduction to clinical practice of music therapy; observation and field trips (2 lec, 1 lab).

**280 Music Therapy Practicum I (1-3)**

Prereq: 181 or perm. Selected field experiences in approved clinical facilities; field evaluation of student.

**281 Observation, Evaluation, and Research in Music Therapy (3)**

Prereq: 180 or perm. (fall) Observation and evaluation skill development through classroom, videotape, and field data collection and analysis; tests and evaluations; research methods and their application to clinical investigations (2 lec, 1 lab).

**282 Music Therapy Methods and Media (3)**

Prereq: 281 or perm. (winter) Development of skills in treatment planning and application including activity design and analysis for problems in all clinical areas.

**283 Recreational Music Instruments and Materials (3)**

Prereq: 282 or perm. (spring) Accompanying instruments and group music activities; special instrumental methods for handicapped.

**380 Music Therapy Practicum II (1-3)**

Prereq: 283 and jr status in music therapy. Selected field experiences in approved clinical facilities; field evaluation of student.

**381 Background in Music Therapy (3)**

Prereq: 283 and jr status in music therapy. Historical review, theory of music therapy, music therapy principles, survey of current literature and trends in music therapy; influence of music on behavior, physiology, emotions, learning and work performance.

**382 Music Therapy for Exceptional Children (3)**

Prereq: 381 and jr status in music therapy. Problems and therapist strategies and techniques for remediation; terminology; treatment settings; other activity therapy approaches and techniques.

**383 Music Therapy in Psychiatry and Rehabilitation (3)**

Prereq: 382 and jr status in music therapy. Problems and therapist strategies and techniques for remediation; terminology, treatment settings; traditional and current psychotherapeutic and behavioral approaches; other activity therapy techniques and approaches.

**480 Music Therapy Practicum III (1-3)**

Prereq: 382 and sr status in music therapy. Selected field experience in approved clinical facilities; field evaluation of student.



**481 Program Development and Administration in Music Therapy (3)**

Prereq: 383 and sr status in music therapy. Program development process for selected clinical populations; administration of music therapy program.

**482 Psychological Foundations of Music (3)**

(winter) Basic study of acoustics, ear and hearing, and psychosocio-physiological process involved in musical behavior.

**489 Clinical Training in Music Therapy (4)**

Prereq: 480, perm., and sr status in music therapy. 6 months as full-time music therapy intern at NAMT-approved clinical training facility following completion of sr yr.

## Independent Studies in Music

**491 Acoustics for Musicians (3)**

Prereq: 203, 205, perm. Nature of vibration and characteristics of sound waves. Room, concert hall, and stadium acoustics and vibration of strings, rods, plates, and air columns studied as they apply to music teaching and performance.

**492 Acoustics for Musicians (3)**

Prereq: 491. Continuation of 491. Temperament, intonation, psychology of music and electronic analyzing, recording, reproducing, and synthesizing of sound.

**498 Independent Projects (1-6)**

Prereq: perm.

**499 Independent Readings in Music (1-12)**

Prereq: perm.

## NURSING

### Associate Degree Program

The following courses for the A.A.S. program in nursing are available only on the Zanesville campus.

**101 Nursing I (5)**

Prereq: perm. Develop basic nursing skills and use of nursing process system to enable individual to maintain or regain ability to meet daily living needs. Medical asepsis and safety, nurse-patient activity, vital signs, normal nutrition and elimination, and basic interviewing technique.

**102 Nursing II (5)**

Prereq: perm. Continued development of basic nursing skills. Surgical asepsis, skills to assist patients to meet daily living needs, therapeutic interviewing techniques, terminal life experience, and medication administration considered.

**103 Nursing III-A (6)**

Prereq: perm. Study nursing care approaches for pathophysiologic conditions of respiratory, gastro-intestinal, and endocrine systems. Nursing responsibilities for diagnostic tests, medical-surgical treatment, pharmacology, and dietary modifications as applicable to these systems included.

**104 Nursing III-B (6)**

Prereq: perm. Developing nursing care approaches for pathophysiologic conditions of cardiovascular system. Offers opportunity for continuity of care in community hospitals and health agencies.

**201 Nursing IV (6)**

Prereq: perm. Family-life cycle presented as broad concept with emphasis on nursing care of maternity patient and normal newborn infant. Pregnancy viewed as natural and normal process; however, specific deviations presented. Learning opportunities offered in hospital setting, doctors' offices, and in other community facilities.

**202 Nursing V (6)**

Prereq: perm. Child considered from neonatal period through adolescence with emphasis on his or her place in family, on family unit as part of community. Nursing responsibilities and application of scientific principles as applied to child in hospital, clinic, and home identified and adapted to needs of each age group. Although major concentration placed on study of individual through adolescence, specific medical-surgical nursing situations which similarly affect adults and children will be included.

**203 Nursing VI (6)**

Prereq: perm. Assist nursing students to develop concepts of mental health, understanding of behavior disorders and mental illness, precipitating factors, prevention, treatment modalities, and of individuals who have difficulty in adapting to stress of everyday life. Emphasis on potential therapeutic role nurse can make in assessment, intervention, and in providing support in various environments.

**204 Nursing VII (6)**

Prereq: perm. One of series of courses dealing with care of medical-surgical patients. Student has opportunity to develop understanding of physical, mental, emotional, and spiritual components of health and disease. Learning experiences selected that permit student to learn preventive, rehabilitative, and curative aspects of disease. Through use of various resources, students will observe and/or care for patients of varying age levels who have common health deviations of reproductive, genitourinary, and sensory systems.

**205 Nursing VIII (9)**

Prereq: perm. Advanced medical-surgical nursing, dealing with care of adults with disorders of nervous and musculoskeletal systems. In addition, emphasis placed on nurse's responsibility in world health problems, emergency, or disaster situations. Experience provided in leadership in preparation for employment.

**206A Trends and Issues in Nursing (1)**

Prereq: perm. (fall) Exploration of concerns of nursing profession past, present, and future. Relationships of technical nurse to health professions and community considered. Future personal development of individual technical nurse discussed.

**206B Trends and Issues in Nursing (1)**

Prereq: perm. (winter) Continuation of 206A. See 206A for description.

**206C Trends and Issues in Nursing (1)**

Prereq: perm. (spring) Continuation of 206A and 206B. See 206A for description.

## Baccalaureate Program

**300\* Concepts of Health Care I (5)**

Focuses on levels of wellness and maintenance of health in individuals and groups. Transcultural health needs and perspectives studied. Present use of problem-solving process in personalizing care for clients.

**302\* Concepts of Health Care VII (5)**

Covers transition from technical to professional level of practice. Assists student to understanding of nursing process as defined by faculty in School of Nursing.

**320\* Concepts of Health Care II (5)**

Focuses on restoration of health or reintegration of health.

**330\* Concepts of Health Care III (5)**

Deals with man's adaptive process to distress and strain. Assists student in further developing critical thinking and therapeutic communication skills.

**340\* Concepts of Health Care IV (5)**

Focus on family-centered community nursing. Provides opportunity to study trends in health maintenance systems and their implications for professional nursing.

\*Required.

**360\* Concepts of Health Care V (5)**

Focuses on quality assurance and management strategies for implementing these objectives for better client care. Beginning competencies in nursing research are developed in students' learnings. Leadership in nursing emphasized.

**380 Concepts of Health Care VI (5)**

Prereq: 320. Focuses on furthering competencies in clinical nursing. Required in med/surg interest pattern. Opportunities planned for students to demonstrate professional competencies in nursing leadership and in use of research process.

**390 Concepts of Health Care XIV (5)**

Covers teaching strategies used by professional nurse in meeting individual and group needs. Presents nursing approaches which lead clients to understand and deal with their health care needs.

**395 Concepts of Health Care XVII (5)**

Covers transactions in gerontological nursing.

**400 Concepts of Health Care VIII (5)**

Prereq: 330. Focuses on furthering nursing competencies in coping with stress and complex emotional and mental behaviors. Required in mental health nursing pattern and utilizes systems theory as it applies to mental health issues. Opportunities provided for students to demonstrate professional competencies in nursing leadership and in use of research process.

**452 Concepts of Health Care IX (5)**

Prereq: 360 and statistics. Focuses on dynamics of nursing leadership and understanding of administrative process in nursing. Uses of nursing research to shape principles of nursing management and intervention emphasized. Required in leadership interest pattern.

**454 Concepts of Health Care X (5)**

Prereq: 320. Focuses on emergency and intensive care nursing.

**456 Concepts of Health Care XI (5)**

Covers nursing care of people with long-term handicapping conditions.

**458 Concepts of Health Care XII (5)**

Focuses on impact of illness on individual.

**460 Concepts of Health Care XIII (5)**

Prereq: 360. Principles of nursing administration in community hospitals and other community health care agencies presented. Problem formulation and problem resolution studied particularly as they relate to change

**464 Concepts of Health Care XV (5)**

Presents legal aspects of nursing

**466 Concepts of Health Care XVI (5)**

Prereq: 340. Presents continuing concepts and practices of family-centered community nursing. Required in community health nursing interest pattern. Opportunities provided to demonstrate competencies in applying the research process to problem-solving in the community setting. Students further their skills in nursing leadership and understanding of role of professional nurse in health care system.

**470 Concepts of Health Care XVIII (5)**

Presents aspects of rural community nursing

**490 Concepts of Health Care XIX (1-5)**

Independent study course

**491 Concepts of Health Care XX (1-3)**

Prereq: matriculation in School of Nursing. Workshop series in nursing. A. Workshop topics focusing on expanded role of nurse. B. Workshop topics focusing on emotional mental health/illness concepts. C. Workshop topics on clinical nursing practices. D. Workshop topics on leadership concepts. E. Workshop topics on health care trends and issues of significance to nurses in region.

\*Required

## OHIO PROGRAM OF INTENSIVE ENGLISH

Credit hours listed for OPIE 40, 45, 50, 55, 60 are not applicable to degree requirements. For English for nonnative speakers applicable to degree requirements, see ENG 150F, 172F.

**40 Intensive English as a Foreign Language (15)**

Full-time intensive study of English as foreign language for students beginning at elementary level. Normally followed by 45. 5 classroom practice and recitation hrs daily. Primary emphasis on developing mastery of spoken English.

**45 Intensive English as a Foreign Language (15)**

Prereq: high elementary proficiency level. Full-time intensive study of English as foreign language. 5 hrs of classroom practice and recitation daily. Practice of spoken English continues, but emphasis shifts to written English. May follow 40.

**50 Intensive English as a Foreign Language (15)**

Prereq: intermediate proficiency level. Full-time intensive study of English as foreign language for students beginning at intermediate level. 5 hrs of classroom practice and recitation daily. Emphasis on both spoken and written English usage. In addition to scheduled EFL class hrs, student may audit an appropriate University class. May follow 40 or 45.

**55 Semi-Intensive English as a Foreign Language (12)**

Prereq: advanced proficiency level. Semi-intensive supplemental study of English as a foreign language at advanced level for students who may enroll in 1 academic course concurrently. 3 hrs of classroom practice and recitation daily. Classroom activity includes both spoken and written English usage, but emphasis on written language practice. May follow either 45 or 50.

**60 Supplemental English as a Foreign Language (8)**

Prereq: advanced proficiency level. Semi-intensive supplemental study of English as foreign language at advanced level for students enrolled in part-time academic program. 2 hrs of classroom practice and recitation daily. Classroom activity includes both spoken and written English usage, but emphasis on written language practice. May follow either 45 or 50 or 55.

## PHILOSOPHY

The major requirement for the A.B. degree consists of a minimum of 40 hours, including 310, 312, 320 and at least three courses numbered above 400.

There are a number of designated minor programs in philosophy for students whose major field of study is related to a specific area of philosophy. The general requirement for the philosophy minor is 25 hours, at least 20 of which must be courses numbered 200 or above. There are approved designated minors in Esthetics, Logic, Philosophy of Science, Religion, Social and Political Theory, Ethics, and History of Philosophy. For more information, contact the Philosophy Department.

Students are advised to begin the study of philosophy with a course at the 100 or 200 level. PHIL 101 is a general survey. The other courses at the 100 and 200 level introduce the student to philosophy by applying it to special fields.

**101 Fundamentals of Philosophy (5) (2H)**

Survey of selected basic problems, concepts, and methods in philosophy

**120 Principles of Reasoning (4) (1M)**

Use of evidence in establishing reliable conclusions

**130 Introduction to Ethics (4) (2H)**

Discussion of classic and/or modern philosophical views of human values, ideals, and morality. Provides introductory survey of some main problems, concepts, and results of ethics

including selected philosophers of past and present.

**160 Introduction to Religion (3) (2H)**

Definition of religion and analysis of its various aspects including ritual, social, experiential, and symbolic.

**216 Philosophy of Science Survey (3) (2H)**

Nontechnical survey of types, testing, and credibility of hypotheses; methods of experimental inquiry; measurement; laws, theories, and their role in explanation, concept formation.

**230 Moral Problems in Medicine (5) (2H)**

Prereq: soph rank. Philosophical investigation of complex moral problems engendered by modern medicine, e.g., death with dignity, human experimentation, allocation of scarce medical resources, birth defects, killing and letting die, informed consent, etc. Basic philosophical concepts underlying these problems explored, including autonomy, coercion, normality, naturalness, rights, justice, responsibility, personhood, etc.

**231 Philosophy of Sport (4)**

Prereq: soph rank. Philosophical exploration into nature, meaning, purposes, values, and ideals of sport. Topics include goods and evils of competition, nature of sports experience, winning and losing, esthetic and ethical dimensions of sport, ultimate athlete, scholastic athletics, philosophy of physical education, concept of sportsmanship, etc.

**232 Philosophy of Art (3) (2H)**

Conceptual analysis of common assumptions, attitudes, theories, and ideas about arts, their criticism, and appreciation.

**240 Social and Political Philosophy (4) (2H)**

Introduction to major philosophical theories concerning nature of social and political communities including those offered by Plato, Aquinas, Hobbes, Locke, Mill, and Rawls. Consideration of some significant specialized problems in social and political theory including distributive justice, civil disobedience, liberty, punishment, etc.

**250 Philosophy of Mind (4) (2H)**

Mind-body problem; concept of self; man-machine relation; problem of other minds.

**260 Philosophy of Religion (4) (2H)**

Problems in nature of religion, existence, and nature of God; problem of evil, immortality, and religious language.

**297T Philosophy Tutorial (1-10)**

Prereq: Honors Tutorial College students only. (fall) 1st yr tutorial studies in philosophy.

**298T Philosophy Tutorial (1-10)**

Prereq: Honors Tutorial College students only. (winter) 1st yr tutorial studies in philosophy.

**299T Philosophy Tutorial (1-10)**

Prereq: Honors Tutorial College students only. (spring) 1st yr tutorial studies in philosophy.

**301 Introduction (3) (2H)**

Prereq: not open to those who have had 101. Analysis of typical philosophical problems arising in study of nature, society, and religion for purpose of developing thoughtful and consistent intellectual perspective.

**310 History of Western Philosophy: Ancient (5) (2H)**

Significant ideas of representative Greek and Roman philosophers.

**311 History of Western Philosophy: Medieval and Renaissance (5) (2H)**

Augustine to Bruno and Campanella.

**312 History of Western Philosophy: Descartes to Hume (5) (2H)**

**314 19th Century European Philosophy (4) (2H)**

Prereq: not open to those who have had former 439. Subjects selected from French, German, and British philosophers of 19th century.

**315 American Philosophy (4)**

Prereq: 3 hrs above 200 in philosophy. Not open to those who

have had former 313. Begins with transcendentalism and includes pragmatism, naturalism, and idealism.

**320 Symbolic Logic I (5) (2H)**

Techniques of modern symbolic logic.

**330 Ethics (5) (2H)**

In-depth study focusing on specific philosopher, or on type of ethical or value theory. Topics vary with instructor.

**333 Philosophy of Literature (3) (2H)**

Examines nature of fictional literature as differentiated from other types of writing and explores philosophical ideas within specific works of fiction, concentrating on problems of translating philosophical content into literary form, especially problems of interpretation, belief, truth, and artistic integrity.

**350 Philosophy of Culture (5) (2H)**

Philosophical studies of man as culture-creating being.

**351 Philosophy of Language (4)**

Prereq: 6 hrs in philosophy, including 120 or 320. Theories of meaning and reference and their philosophical significance, relations of meaning to verification and truth, and relationship between language and concepts.

**358 Existentialism (4)**

Prereq: 9 hrs in philosophy. Existential thought from Kierkegaard to Camus stressing such themes as freedom, existence, despair, authenticity, alienation, death, and revolt against system.

**361 Old Testament (5) (2H)**

Background and development of Old Testament; its philosophical, moral, and religious significance.

**362 New Testament (5) (2H)**

Background and development of New Testament; philosophical, moral, and religious significance of beliefs of Jesus, Paul, and early Church.

**370 Hinduism (4) (2T)**

Prereq: jr rank. Vedic religion, Hinduism, Jainism.

**371 Buddhism (4) (2T)**

Prereq: jr rank. Introduction to doctrines, origins, and varieties.

**372 Islam (4) (2T)**

Prereq: jr rank. Introduction to core ideas.

**373 American Religions (4) (2H)**

Prereq: jr rank. Christianity, Judaism, and other religions and developments in U.S.

**397T Philosophy Tutorial (1-10)**

Prereq: Honors Tutorial College students only. (fall) 2nd yr tutorial studies in philosophy.

**398T Philosophy Tutorial (1-10)**

Prereq: Honors Tutorial College students only. (winter) 2nd yr tutorial studies in philosophy.

**399T Philosophy Tutorial (1-10)**

Prereq: Honors Tutorial College students only. (spring) 2nd yr tutorial studies in philosophy.

**414 Analytic Philosophy (5)**

Prereq: 4 philosophy courses and perm prior to registration. Selected topics in contemporary Anglo-American philosophy from Moore to Wisdom.

**415 Contemporary Philosophical Problems (5)**

Prereq: 2 courses in philosophy above 400. Issues from current journal literature.

**416 Philosophy of Science (5)**

Selected problems in logic and methodology of sciences.

**418 Plato (5)**

Prereq: 4 philosophy courses, including 310. (alternate yrs).

**419 Aristotle (5)**

Prereq: 4 philosophy courses, including 310. (alternate yrs).

**420 Symbolic Logic II (5)**

Prereq: 320. Informal and formal deductive systems, logic of relations, class logic.

**421 Proof Theory (5)**

Prereq: 320 or equiv. (offered on demand) Syntax and semantics of formal theories.

**422 Computability (5)**

(offered on demand) Algorithms, recursive functions, Turing machines, decidability.

**423 Modal and Many-Valued Logics (5)**

Prereq: 320. (offered on demand) N-valued logics, modal logic.

**424 Foundation Theory (5)**

Prereq: 320 or equiv. (offered on demand) Alternative bases for developing formal theories.

**428 Continental Rationalism (5)**

Prereq: 4 philosophy courses, including 312. (alternate yrs) Descartes, Spinoza, Leibniz.

**429 British Empiricism (5)**

Prereq: 4 philosophy courses, including 312. (alternate yrs) Locke, Berkeley, Hume.

**430 Contemporary Ethical Theory (5)**

Prereq: 4 philosophy courses, including 130 or 330. Significant current literature in selected topics of moral philosophy.

**431 History of Esthetic Theory (5)**

Prereq: 4 philosophy courses. Readings from Plato to Dewey and relation of these theories to selected arts and recent criticism.

**432 Problems in Esthetics (5)**

Prereq: 9 hrs philosophy, literature, or art. For students interested in arts but not necessarily in issues primarily of interest to philosophers. Writings drawn from modern sources on theory of art, esthetic criticism, creativity, truth in art, esthetic value.

**438 Kant (5)**

Prereq: 4 philosophy courses, including 312. (alternate yrs) Kant's *Critique of Pure Reason* with attention given to Kant's ethical theory.

**440 Contemporary Social Philosophy (5)**

Prereq: 330 or 240 or 442 and three other philosophy courses. Consideration of any of a number of various issues in contemporary social, political and legal philosophy. Possible topics are: theories of distributive justice, culpability, causality and responsibility, legal and moral rights, etc.

**442 Philosophy of Law (5)**

Prereq: 1 philosophy course or perm. Consideration of nature and justification of law and examination of some specialized topics in philosophy of law including ascription of responsibility, civil disobedience, theories of punishment, liberty, etc.

**444 Philosophy of Marxism (5)**

Prereq: 4 philosophy courses. Philosophical inquiry into classical and contemporary Marxist thought stressing Marx, Engels, Lenin, Stalin, Mao, and several contemporary Marxists such as Praxis group of Yugoslavia.

**448 Pragmatism (5)**

Prereq: 4 philosophy courses (alternate yrs) Pierce, James, Dewey.

**450 Theory of Knowledge (5)**

Prereq: 4 philosophy courses, including 312. Critical examination of various views of what knowledge is and how it is attained.

**451 Metaphysics (5)**

Prereq: 4 philosophy courses, including 310 or 312. Basic alternative conceptions of world, and such topics as nature of substance, causality, self, freedom, space, and time.

**452 Myth and Symbolism (5)**

Prereq: 4 philosophy courses. Characteristic expressions of thought in primitive societies and theories concerning primitive mentality.

**458 Contemporary German Philosophy (5)**

Prereq: 4 philosophy courses including 358 and 468. (alternate yrs) Analysis of themes in Husserl, Heidegger, Scheler, Hartman, Dilthey, Cassirer, Gebser, and Ingarden, stressing phenomenological roots as well as new philosophic directions.

**459 Contemporary French Philosophy (5)**

Prereq: 4 philosophy courses, including 358 and 468. (alternate yrs) Trends in contemporary French philosophy, stressing Sartre, Camus, Marcel, Merleau-Ponty, and Ricoeur, emphasizing existential backgrounds of French thought and its adaptation of existential themes.

**460 Contemporary Religious Thought (5)**

Prereq: 4 philosophy courses. Representative thinkers such as Tillich, Buber, and others.

**468 Phenomenology (5)**

Prereq: 4 philosophy courses, including 312. Method and philosophy of phenomenological movement from Husserl to Merleau-Ponty.

**475 Chinese Philosophy (5)**

Prereq: 4 philosophy courses, including 371. Major Chinese philosophers and schools of thought from earliest times to present.

**476 Indian Philosophy (5)**

Prereq: 4 philosophy courses, including 370. Classical Hinduism.

**477 Buddhist Philosophy (5)**

Prereq: 4 courses, including 371. Abhidharma, Madhyamika, Yogacara, Zen, and other philosophical doctrines of Buddhism.

**479 Religion Studies in Public Education (3)**

Examination of differences between practice and study of religion, with special reference to Supreme Court decisions and place of religion courses in secondary school curricula.

**491 Seminar in Philosophy (1-15, max 15)**

Prereq: 5 philosophy courses. Selected problems.

**497 Independent Reading (1-9, max 12)**

Prereq: perm of chairman.

**497T Philosophy Tutorial (1-10)**

Prereq: Honors Tutorial College students only. (fall) 3rd yr tutorial studies in philosophy.

**498T Philosophy Tutorial (1-10)**

Prereq: Honors Tutorial College students only. (winter) 3rd yr tutorial studies in philosophy.

**499T Philosophy Tutorial (1-10)**

Prereq: Honors Tutorial College students only. (spring) 3rd yr tutorial studies in philosophy.

## PHOTOGRAPHY

See Art.

## PHYSICS

### Physical Science

#### Physics

The minimum requirement for the A.B. degree with a major in physics is 36 quarter hours, including a sequence of beginning courses, either 251, 252, 253, and 316 or 201, 202, 203 and 315, 316 (credit is not granted for both sequences). This degree is recommended for students who (1) want a general education with emphasis on physics; (2) have plans for further education or employment in an interdisciplinary area or desire a dual major

in physics and chemistry, zoology, geology, etc.; (3) want to teach physics in high school. The requirements for option (3), for example, may be met by completing the 31 hours in the physics module under the physics major program listed under the *College of Education*.

The minimum requirement for the B.S. degree with a major in physics is 56 quarter hours. This must include a sequence of beginning courses, either 251, 252, 253, and 316 or 201, 202, 203 and 315, 316 (credit is not granted for both sequences). In addition, the following advanced courses are specifically required: 272, 273, 311, 312, 371, 372, 373, 411, 427, 428, 451, 452. The requirements in mathematics are 263A, 263B, 263C, 340, 440, 441. The Physics Department also requires 12 quarter hours of a natural science other than physics and mathematics for the B.S. degree.

Students who plan to enter graduate study will find a recommended curriculum listed under "Preparation for Advanced Training in Physics" in the *College of Arts and Sciences Special Curricula* Section. An applied physics program and programs for students interested in astronomy or meteorology are also listed under this section. Students planning to enter graduate study are urged to complete the foreign language requirement in German, French, or Russian. For English composition requirements, see the *College of Arts and Sciences* Section.

Selected students may enroll in the physics tutorial program through the Honors Tutorial College. Students in this program have the option of taking engineering physics for which a curriculum is listed under the *Honors Tutorial College* Section.

Completion of the requirements for either the A.B. or B.S. degree program above completes the Arts and Sciences College requirement of at least nine hours in the major at the junior-senior level.

All students interested in pursuing any of the physics programs described above should contact the chairman of the Physics Department.

## Physical Science

### 100 Survey of Astronomy (4) (2N)

Nontechnical course requiring no physics or mathematics background. Topics covered: risings and settings of sun, moon, and stars for various latitudes; causes of seasons; learning to know constellations; physical properties of planets; life on other planets; comets, meteors, and meteorites; physical properties of sun and stars; origin and evolution of stars; structure of our galaxy; pulsars; quasars; other galaxies; expanding universe; theories of cosmology. Also listed as ASTR 100. 4 lec.

### 100A Science and Society (4)

Investigations of nature of science and its methods in obtaining knowledge and laws of our total environment. Seeks understanding of basic nature of science and builds comprehension of how science is relevant to man and society. 3 lec, 1 disc.

### 100B The Universe (4) (2N)

Designed for nonscience major with minimal mathematical background. Descriptive study of astrophysical universe. Fundamental concepts and physical principles; life cycle of stars; explanation of recent findings including pulsars, quasars and black holes, theories of cosmology describing beginning and end of our universe. Other possible topics include UFOs, space exploration and possibility of extraterrestrial life. Also listed as ASTR 100B. 4 lec.

### 100C The Atom and Its Nucleus (3)

Nonmathematical description of basic structure of atoms and nuclei with special emphasis on impact of nuclear physics on 20th-century man. Applications of modern physics in art, archaeology, medicine, and social problems. 3 lec.

### 100D Moons and Planets: The Solar System (4) (2N)

Look at solar system, sun, moons, and planets, through eyes of modern science. Space program, Apollo to present, and what we have learned from it. Selected readings and NASA films. 4 lec. Also listed as ASTR 100D.

### 101 Physical World (4) (2N)

Designed for nonscience majors. Fundamental ideas of measurement, motion, energy, electricity and magnetism, heat, atomic and nuclear physics. Introduction to relativity and quantum phenomena. 4 lec.

### 101L Physical World (5) (2N)

Designed for nonscience majors. Fundamental ideas of measurement, motion, energy, electricity and magnetism, heat, atomic and nuclear physics. Introduction to relativity and quantum phenomena. 4 lec, 2 lab.

### 105 Color, Light, and Sound (4) (2N)

Designed for nonscience majors. Physical nature of light and sound, including transmission, absorption, reflection, interference, and resonance. Applications include analysis of musical instruments, acoustics, optical systems, perception of color and sound. 4 lec.

### 105L Color, Light, and Sound (5) (2N)

Designed for nonscience majors. Physical nature of light and sound, including transmission, absorption, reflection, interference, and resonance. Applications include analysis of musical instruments, acoustics, optical systems, perception of color and sound. 4 lec, 2 lab.

### 111 The Metric System (1)

Introduction to International [Metric] System of Units (SI) through lecture and laboratory experience. Topics include: history of and rationale for SI; SI and its rules for use; metric computation and conversion techniques. Not offered on Athens campus.

### 121 Physical World (3) (2N)

Designed for nonscience majors. Fundamental ideas of measurement, motion, energy, sound, light, electricity and magnetism, and astronomy. Topics in astronomy include solar system, time, moon phases, tides, eclipses, sun, and galaxies. 3 lec. Not offered on Athens campus.

### 121L Physical World (4) (2N)

Designed for nonscience majors. Fundamental ideas of measurement, motion, energy, sound, light, electricity and magnetism, and astronomy. Topics in astronomy include solar system, time, moon phases, tides, eclipses, sun, and galaxies. 3 lec, 2 lab. Not offered on Athens campus.

### 122 Physical World (3) (2N)

Prereq: 101 or equiv. Designed for nonscience majors. Fundamental ideas of heat, nuclear physics, atomic physics, and chemistry. Topics in chemistry include classification of elements, molecules, chemical reactions, solutions, and large molecules, including plastics and DNA. 3 lec. Not offered on Athens campus.

### 122L Physical World (4) (2N)

Prereq: 101 or equiv. Designed for nonscience majors. Fundamental ideas of heat, nuclear physics, atomic physics, and chemistry. Topics in chemistry include classification of elements, molecules, chemical reactions, solutions, and large molecules, including plastics and DNA. 3 lec, 2 lab. Not offered on Athens campus.

### 123 Physical World (3) (2N)

Prereq: 101 or equiv. Designed for nonscience majors. Fundamental ideas of meteorology and geology. Topics in meteorology include atmosphere, winds, clouds, storms, and weather. Topics in geology include rocks and minerals, gradation, earthquakes, continental drift, and ocean. 3 lec. Not offered on Athens campus.

### 123L Physical World (4) (2N)

Prereq: 101 or equiv. Designed for nonscience majors. Fundamental ideas of meteorology and geology. Topics in meteorology include atmosphere, winds, clouds, storms, and weather. Topics in geology include rocks and minerals, gradation, earthquakes, continental drift, and ocean. 3 lec, 2 lab. Not offered on Athens campus.

## Physics

### 201 Introduction to Physics (4) (2N)

(fall, winter) 1st course in physics; open to students from all areas. Students should have high school level algebra and trigonometry, but no calculus required. Recommended for students in liberal arts, architecture, industrial technology, botany, geology, and premedicine. Lec with demonstrations and lab. Mechanics of solids and liquids, waves and sound. 3 lec, 2 lab.

### 202 Introduction to Physics (4) (2N)

Prereq: 201. (winter, spring) Continuation of 201. Open to students from all areas. Students should have high school level algebra and trigonometry, but no calculus required. Recommended for students in liberal arts, architecture, industrial technology, botany, geology, and premedicine. Lec with demonstrations and lab. Includes electricity, magnetism, heat, thermodynamics, and light. 3 lec, 2 lab.

### 203 Introduction to Physics (4) (2N)

Prereq: 202. (spring, fall) Continuation of 202. Open to students from all areas. Students should have high school level algebra and trigonometry but no calculus required. Recommended for students in liberal arts, architecture, industrial technology, botany, geology, and premedicine. Lec with demonstrations and lab. Includes relativity, quantum, atomic, and nuclear physics. 3 lec, 2 lab. Note: Students who complete 201-202-203 sequence and wish to take higher-level physics course should take 315 in preparation for other 300-level and above courses. Credit is not given for both the 201-202-203 and 251-252-253 sequences together.

### 211 The Universe (3)

Prereq: 9 hrs of physics or physical science or perm. Descriptive study of astrophysical universe. Fundamental physical principles, evolution of stars, pulsars, quasars and recent theories of cosmology. 3 lec.

### 251 General Physics (5) (2N)

Prereq: MATH 263A. Classical physics with calculus and vectors. Newtonian mechanics, rotational dynamics, gravitation. 3 lec, 2 lab, 1 recit.

### 252 General Physics (5) (2N)

Prereq: 251 and MATH 263B. Classical physics with calculus and vectors. Wave phenomena, optics, thermal properties of matter, heat, and thermodynamics. 3 lec, 2 lab, 1 recit.

### 253 General Physics (5) (2N)

Prereq: 252. Classical physics with calculus and vectors. Electricity and magnetism. 3 lec, 2 lab, 1 recit.

### 270 Special Studies (1-4)

Prereq: perm. Special studies in physics under supervision of faculty member.

### 272 Electronics Laboratory (2)

Prereq: 202, or 253, or perm. (winter) Circuit analysis, electronic measurements, semiconducting devices and instrumentation from DC to microwaves. 4 lab.

### 273 Electronics Laboratory (2)

Prereq: 272 or perm. (spring) Circuit analysis, electronic measurements, semiconducting devices, and instrumentation from DC to microwaves. 4 lab.

### 297T Physics Tutorial (1-15)

Prereq: Honors Tutorial College students only. (fall) 1st yr tutorial studies in physics.

### 298T Physics Tutorial (1-15)

Prereq: Honors Tutorial College students only. (winter) 1st yr tutorial studies in physics.

### 299T Physics Tutorial (1-15)

Prereq: Honors Tutorial College students only. (spring) 1st yr tutorial studies in physics.

### 303 Digital Computing Methods in Physics (4)

Prereq: physics major or perm. Practical computer programming

(FORTRAN, etc.) with special emphasis on problems in physics. 4 lec.

### 311 Mechanics (4)

Prereq: 253 or 315; MATH 340 (may be taken concurrently). (fall) Fundamentals of physical mechanics and wave motion, using vector analysis and differential equations. Newton's laws, equilibrium, harmonic, and central force motion of particles. 3 lec.

### 312 Mechanics (4)

Prereq: 311. (winter) Continuation of 311. Accelerated reference frames, motion relative to the earth, Lagrange's equations, rigid body motion, vibrations and wave motion. 3 lec.

### 315 Intermediate Physics for Scientists and Engineers (4)

Prereq: 201, 202, 203 or equiv and calculus. (winter) Review of mechanics and general physics with emphasis on application of calculus and vector analysis. Intended for students who have had a thorough noncalculus physics course and approximately 1 yr of calculus. PHYS 201, 202, 203 followed by 315 accepted as equiv to calculus-level physics; PHYS 251, 252, 253. 3 lec, 1 recit.

### 316 Contemporary Physics for Scientists and Engineers (3)

Prereq: 252 or 315. Introduction to quantum theory and relativity; selected topics in atomic, nuclear and solid state physics. 3 lec. Intended to follow classical physics with calculus; either 253 (252 for electrical engineering majors) or 315.

### 371 Intermediate Laboratory (Electrons) (2)

Prereq: 316 (or with 316) or perm. Fundamental experiments on electrons. 4 lab.

### 372 Intermediate Laboratory (Photons) (2)

Prereq: 316. (winter) Speed of light, optics, lasers, x-rays, and spectroscopy. 4 lab.

### 373 Intermediate Laboratory (Nucleons) (2)

Prereq: 316. (spring) Basic phenomena in atomic and nuclear physics studied with charged particle accelerator. Proton and neutron induced reactions and scattering. Principles and operation of radiation detectors. Interaction of radiation with matter. Neutron activation analysis. 4 lab.

### 397T Physics Tutorial (1-15)

Prereq: Honors Tutorial College students only. (fall) 2nd-yr tutorial studies in physics.

### 398T Physics Tutorial (1-15)

Prereq: Honors Tutorial College students only. (winter) 2nd-yr tutorial studies in physics.

### 399T Physics Tutorial (1-15)

Prereq: Honors Tutorial College students only. (spring) 2nd-yr tutorial studies in physics.

### 411 Thermodynamics (4)

Prereq: 253 or 315, MATH 340. (fall) First and second laws of thermodynamics, phase changes, and entropy. Temperature, thermodynamic variables, equations of state, heat engine. 3 lec.

### 412 Kinetic Theory and Statistical Mechanics (4)

Prereq: 411. (winter) Kinetic theory, transport phenomena, and introduction to classical and quantum statistics. 3 lec.

### 420 Acoustics (3)

Prereq: 312 or perm, MATH 340. (spring) Vibration, sound radiation, sound propagation, and practical aspects of sound. 3 lec. Offered odd years.

### 423 Geometrical and Physical Optics (4)

Prereq: 253, MATH 340, or perm. Reflection, refraction, lenses, polarization, birefringence, interference, diffraction, coherence, and selected introductory topics in modern optics. 3 lec, 2 lab.

### 427 Electricity and Magnetism (4)

Prereq: 253 or 315, MATH 340 and 440. (fall) Circuits and electric and magnetic fields. Topics on field sources, potentials,

Gauss' law, polarization and dielectrics, magnetic induction. 3 lec.

#### 428 Electricity and Magnetism (4)

Prereq: 427. (winter) Electric and magnetic fields. Topics on magnetic potentials, magnetic forces, Faraday law, magnetic materials, capacitance and inductance, energy of charge and current distributions, time-varying current. 3 lec.

#### 429 Electromagnetism and Relativity (3)

Prereq: 428. (spring) Advanced topics in electromagnetism; Maxwell's equations and electromagnetic waves; special relativity and Lorentz transformation. 3 lec.

#### 451 Quantum Physics (4)

Prereq: 316 or perm. (fall) Quantum effects in atomic and molecular physics; basic ideas of quantum mechanics; solutions to Schrodinger equations for simple systems. 3 lec.

#### 452 Quantum Physics (4)

Prereq: 451; MATH 441 (may be taken concurrently). (winter) Quantum effects in atomic physics; identical particles and Pauli Principle; application of quantum mechanics to interpretation of atomic spectra and structure. 3 lec.

#### 453 Nuclear and Particle Physics (4)

Prereq: 452. (spring) Descriptive treatment of nuclear phenomena. Elementary theory of nucleon-nucleon interaction. Systematics of nuclear structure (shell model and collective model). Properties and interactions of fundamental particles. Devices and techniques of nuclear and high energy physics. 3 lec.

#### 470 Special Problems (1-4)

Prereq: 22 hrs. Supervised research problems of limited scope in experimental and theoretical physics.

#### 471 Solid State Physics (4)

Prereq: 452, 412. (spring) Fundamental properties of solid state of matter. 3 lec. Offered yearly on demand.

#### 475 Advanced Laboratory (1 hr per sec, max 3)

Prereq: 373 or perm. Wide selection of experiments from many areas of physics. Limit of 2 students per section. Student may select up to 3 different sections each qtr.

#### 490H Honors Thesis (1-6)

Prereq: Honors tutorial students or departmental honors candidates only. Perm of director of honors studies. Supervised research work in physics, astronomy, or engineering physics, intended for submission for undergraduate honors.

#### 493 Undergraduate Seminar (1)

Prereq: jr rank. Important areas of current interest in field of physics, the history of physics, development of ideas in physics, and other aspects of physics.

#### 497T Physics Tutorial (1-15)

Prereq: Honors Tutorial College students only. (fall) 3rd-yr tutorial studies in physics.

#### 498T Physics Tutorial (1-15)

Prereq: Honors Tutorial College students only. (winter) 3rd-yr tutorial studies in physics.

#### 499T Physics Tutorial (1-15)

Prereq: Honors Tutorial College students only. (spring) 3rd-yr tutorial studies in physics.

## POLITICAL SCIENCE

The major requirement for the A.B. degree is a minimum of 45 hours including POLS 101 and either 102 or 103. Majors must also take at least one course at the 200 level or above in four of the following five areas: American politics; comparative politics; international relations; political theory; public administration. Fulfillment of this distribution requirement also guarantees completion of the requirement of the College of Arts and Sciences of nine hours at the junior-senior level. The distribution

requirement for a minor in political science is the same as for the major but the total number of hours required is 24.

American politics includes: 304, 306, 320, 323, 374, 390, 401, 402, 403, 404, 405, 406, 409, 415, 417, 418, 419, 420, 471, 476A, 476B; comparative politics: 230, 331, 333, 335, 429, 431, 432, 433, 434, 435, 436, 437, 438, 439, 441, 445, 446, 447A, 447B, 448, 479; international relations: 250, 351, 354, 427, 433, 452, 455, 456, 459, 461, 463; political theory: 270, 371, 372, 373, 374, 416, 471, 474, 475, 476A, 476B, 478, 479, 481, 482, 483, 485; public administration: 210, 408, 409, 410, 411, 412, 413, 414, 416, 422, 423, 424, 426, 427, 429, 495.

#### 101 American National Government (4) (2S)

Constitutional basis and development, political processes, and organization of American national government.

#### 102 Issues in American Politics (4) (2S)

Prereq: 101. Continuation of 101. Concerned with administration and policy making processes of national government in selected areas, i.e., welfare, civil rights, defense, etc.

#### 103 The United States in World Affairs (4) (2S)

Designed to introduce students to some major problems confronting United States in world arena and to ways in which these problems have been and are being dealt with. Will include examination of context in which American foreign policy is formulated and carried out as well as of some political, economic, military, and technological issues involved in working within an increasingly interdependent world.

#### 210 Principles of Public Administration (4)

*M. Weinberg, J. Tucker.* Introduction to role and operation of public agencies in American society. Examines organization of federal, state, and local bureaucratic systems, their interrelations, and their basic principles, functions and tasks.

#### 230 Comparative Politics (4) (2S)

*E. Baum, D. Williams.* Introduction to dynamics, structures, and comparison of contemporary political systems and processes.

#### 250 International Relations (5) (2S)

*R. Bald, S. Kim, H. Molineu, P. van der Veur.* Contemporary international system and major forces and conditions which affect current international politics. Special emphasis on role of conflict and need for peaceful conflict resolution.

#### 270 Political Theory (4)

Introduction to study of political theory: examination of selected political issues from philosophical perspective.

#### 304 Politics in the American States (5)

Prereq: 101-102. *J. Tucker.* Comparative analysis of state political systems. Emphasis on structure and process of policy-making of states within a federal context.

#### 306 Politics of Appalachia (4) (2S)

*J. Huntley.* Introduction to broad range of Appalachian political problems, such as politics of poverty and powerlessness. Includes examination of responses to these problems by various levels of government — national, regional, state, and local.

#### 320 Urban Politics (5) (2S)

Prereq: 101-102 or perm. *J. Barnes.* Examination of role of values in urban politics focusing on their relationship to urban problems, structure and functions of municipalities, urban professionalism, and alternative urban arrangements.

#### 323 Black Politics in the United States (4) (2S)

Prereq: 101 or perm. Appraisal of economic and institutional structure of American society through social doctrines enunciated by black political theorists, which serve as inspiration and ideology for black political movements. Examines socio-political societies in various parts of Africa and interprets black political movements in cultural, philosophical, ideological, and technological terms. Not open to those who have had AAS 323.

#### 331 Politics in Western Europe (4) (2S)

*W. Elsbree, R. Bald.* Government and politics in several West European nations.



**333 Politics in the Soviet Union (4) (2S)**

*D. Williams.* Introduction to political development, ideology, institutions, and contemporary politics of the U.S.S.R.

**335 The Politics of Developing Areas (4) (2T)**

*F. Gagliano.* Major theories and problems of political, socio-cultural, and economic development in new nations of Asia, Africa, and Latin America, with special emphasis on heritage of colonialism, struggle for independence, and political adjustments to rapid social and technological change.

**351 Current International Problems (4) (2S)**

*R. Bald, S. Kim, H. Molineu, P. van der Veur.* Selected case studies, crises, and issues illustrating major problems of contemporary international politics.

**354 American Foreign Policy (5)**

Prereq: 103 or 250 or perm. *H. Molineu.* Consideration of problems involved in formulation and execution of foreign policy. Particular emphasis on contemporary problems of American policymakers.

**371 Ancient and Medieval Political Thought (5)**

Prereq: not open to fr. *F. Henderson, R. Hunt.* Major figures and basic concepts characteristic of political thought in ancient and medieval periods. Emphasis on original works of Plato, Aristotle, St. Augustine, Dante.

**372 Modern Political Thought (5) (2S)**

Prereq: not open to fr. *F. Henderson, R. Hunt.* Basic philosophical conceptions of modern nation state. Utilizing original works, evolution of nation state traced through philosophical literature from its Renaissance origins. Attention focused on both formative and critical perspectives, such as those of Machiavelli, Rousseau, and Emma Goldman with emphasis upon evaluation of norms associated with modern state.

**373 Contemporary Political Thought (5) (2S)**

Prereq: not open to fr. *F. Henderson, R. Hunt.* 19th and 20th century political theory. Focus on such contemporary philosophical and political issues as emergence of European socialist tradition, origins of human aggression, and human alienation. Attention given to selected theorists such as Marx, Freud, Gandhi, and Sartre.

**374 Great Jurists (4) (2S)**

Prereq: not open to fr. *F. Henderson.* Analysis of life, legal writings, and thought of prominent jurists such as Taney, Frankfurter, Harlan, Marshall, Douglas, and Learned Hand.

**390 Political Workshop (10-15)**

Prereq: 101-102 and 1 other course in political science. (offered fall qtr of even-numbered years) Intensive analysis of political organizations and campaigning combined with field experience in campaigning

**401 American Constitutional Law (4)**

Prereq: 14 hrs political science or history. *R. Gusteson.* Principles underlying American constitutional government. Consideration of leading cases with reference to interpretation of the Constitution of the United States

**402 American Constitutional Law (4)**

Prereq: 14 hrs political science or history. Continuation of 401. See 401 for description

**404 Civil Liberties (4)**

*F. Henderson.* Examination of selected civil liberties issues such as freedom of expression, human and political equality, rights of criminally accused, and rights of indigent

**405 American Political Parties (4)**

Prereq: 11 hrs *R. Gusteson.* Origin, growth, organization, and methods of parties, suffrage, nominations, and elections, role of parties in a democracy

**406 Elections and Campaigns (4)**

Prereq: 8 hrs *P. Richard.* Examines nature of voter and rationality of voter decisions, impact of campaigns and their influence on election outcomes, techniques used in political campaigns, and role of elections in American society

**408 Urban Public Administration (4)**

*M. Weinberg.* Examines administration of urban programs. Focuses on agency-client relationships, professionalism, and public service delivery.

**409 Law Enforcement (5)**

Prereq: 11 hrs or perm. Role, function, and problems of American judicial, prosecutory, policing, and correctional systems in political process. Crime and law as functions of social and political systems. Examination of relationship of law and social change in industrialized, urbanized, and technical society.

**410 Public Policy Analysis (4)**

Prereq: 101-102. Analysis of policy process: formulation, implementation, and evaluation. Examines policy areas such as energy, health, economic development.

**411 Public Administration (4)**

Prereq: 11 hrs or perm. *J. Collins, J. Tucker, M. Weinberg.* Development of administrative organizations, current ideas in organizational theory, nature of federal bureaucracy, fiscal management, and control of administrative action.

**412 Public Personnel Administration (4)**

Prereq: 11 hrs. *E. Collins.* Philosophy, problems, and procedures of public personnel management: recruitment, training, promotion policies, position classification, and employer-employee relations.

**413 Administrative Law (5)**

Prereq: 11 hrs. *E. Collins.* Organization, functions, and procedures of selected national regulatory agencies; principles affecting administrative discretion, administrative power over private rights, enforcement, and judicial control of administrative decisions.

**414 Organizational Theory and Behavior (4)**

Prereq: 11 hrs. *M. Weinberg.* Examination of central role of organizations in public life, presenting major theories of organizations, organizational behavior, and individual's role in organization. Explanatory theories drawn from political philosophy, political psychology, and sociology, as well as from public administration. Cases examined.

**415 The American Presidency (4)**

Prereq: 11 hrs. *R. Gusteson.* Analysis of office of national chief executive and its place in American political system. Attention given to constitutional status and powers, functional development, and interrelationship of man and office.

**417 Legislative Politics (5)**

Prereq: 101 or perm. *P. Richard.* Explores legislative process and policy, primarily at national level. Examines influence of interest groups, constituencies, political parties, executive branch, and organizational structure of Congress on legislative outcomes.

**418 Interest Groups in American Politics (5)**

Prereq: 11 hrs. Organization and tactics of pressure groups and their impact on policy-making process.

**420 Women, Law, and Politics (4)**

Prereq: 101 or perm. *P. Richard.* Focuses on political and legal position of women in U.S. Covers women's legal status, feminist movement, current issues, and public policy responses concerning women's position such as Equal Rights Amendment, marriage and divorce laws, affirmative action, and abortion.

**423 Public Budgeting (4)**

Prereq: 411 or perm. *M. Weinberg.* Examines purposes, techniques, and consequences of public budgeting processes at federal, state, and local levels

**424 Intergovernmental Relations (4)**

Prereq: 411 or perm. Examines intergovernmental fiscal patterns between federal state local governments and impact of fiscal transfers on local budgeting and finance administration. Includes analysis of nonfiscal patterns such as federal program requirements, their impact on local administrative processes, and other pressures on local budgeting and finance

**427 Formulation of American Foreign Policy (5)**

Prereq: 103 or 354 or perm. *H. Molineu*. Covers institutional and administrative as well as political and more informal processes whereby foreign policy decisions are formulated and implemented in United States.

**429 Comparative Public Administration (4)**

Prereq: 11 hrs or perm. *D. Williams*. Examines and compares characteristics of public administrative systems in various national political settings.

**432 Policy-making in the U.S.S.R. (4)**

Prereq: 333 or course in Soviet history or perm. *D. Williams*. Examination of how Soviet leadership deals with number of major domestic problems.

**433 Soviet Foreign Policy (5)**

*D. Williams*. Analysis of foreign policies of U.S.S.R. Historical, ideological, strategic, and other influences covered. Relations with bloc countries included.

**434 Government and Politics of Latin America (4)**

Prereq: jr or sr rank. *T. Walker*. Political systems of Latin America. Emphasis on power relationships and political obstacles to change in contemporary Latin America.

**435 Revolution in Latin America (4) (2T)**

Prereq: jr or sr rank. *T. Walker*. Revolution as a theoretical concept and as a practical reality in several Latin American countries. Special emphasis on Cuban and Nicaraguan revolutions.

**436 The Politics of Brazil (4) (2T)**

Prereq: jr or sr rank or perm. *T. Walker*. Emphasis on 20th century politics, particularly relationship between patrimonial society and political institutions. Important power contenders such as military, church, landed aristocracy, industrial elite, bureaucracy, labor, and peasantry examined.

**437 British Parliamentary Pattern (4)**

Prereq: 11 hrs or perm. *W. Elsbree, D. Williams*. Political institutions and processes in Britain and impact of British pattern on 1 or more other countries.

**438 Government and Politics of Germany (5)**

Prereq: 11 hrs or perm. *R. Bald*. Major political processes, personalities, and institutions of contemporary West Germany, including key foreign policy issues.

**439 Politics in France (4)**

Prereq: 11 hrs or perm. *J. Barnes, D. Williams*. Major political processes, personalities, ideas, and institutions of modern France.

**441 Government and Politics of Africa (5)**

Prereq: 8 hrs political science or history. *E. Baum*. Development and structure of modern African states with emphasis on political processes in tropical Africa.

**445 Government and Politics of Japan (4)**

Prereq: 11 hrs of political science or Asian history. *W. Elsbree*. Political institutions and processes of Japan with emphasis on developments since 1945.

**446 Government and Politics of China (4)**

Prereq: 11 hrs of political science or Asian history. *W. Elsbree*. Political institutions and processes and major political developments in modern China.

**447A Government and Politics of Southeast Asia (4) (2T)**

*P. van der Veur*. From ancient empires to western colonial rule, rise of nationalism and arrival of independence in post WW II period. Main emphasis on political developments in Indonesia and the Philippines.

**447B Government and Politics of Southeast Asia (4) (2T)**

Continuation of 447A but can be taken independently. Period of independence since WW II with main emphasis on political developments in Indonesia and Malaysia.

**448 Politics of Southeast Asia (4)**

Prereq: by perm only. *P. van der Veur*. Discusses and analyzes

various aspects of major themes such as nationalism, colonialism, political succession, national integration, corruption, etc.

**450H Honors in Political Science (5, max 20)**

Prereq: acceptance in departmental honors program. Seminar on selected aspects of political science and approaches to study of politics to be followed by research for an honors thesis.

**452 Advanced International Relations (5)**

Prereq: 250 or perm. *H. Molineu, S. Kim, R. Bald*. In-depth analysis of various aspects of international relations including major theoretical approaches to study of international relations.

**455 International Law (5)**

Prereq: 250 or perm. *S. Kim*. Role of international law in interstate relations and international organization.

**456 International Organization (5)**

Prereq: 250. *S. Kim*. Analysis of nature, development, structure, and functions of international organizations with particular emphasis on United Nations.

**459 Arms Control and Disarmament (4)**

Prereq: 11 hrs. *R. Bald*. Examines military force in nuclear age with special emphasis on strategy of nuclear deterrence; history of disarmament negotiations since WW II; arms control agreements; and case studies in current US-Soviet arms control negotiations.

**461 Weak States in World Politics (4)**

Prereq: 250. *E. Baum*. Detailed examination of impact of new states on international relations. Particular attention given to problems and foreign policies of new states.

**463 The United States and Africa (5)**

Prereq: 103 or 250 or 354. *E. Baum*. Origins and nature of American relations with African states, with emphasis on current American interests and policy.

**471 Legal Theory and Social Problems (4)**

*F. Henderson*. Examination of legal reasoning and normative values of judges, lawyers, legal theorists, and quasi-judicial bodies in shaping legal solutions to contemporary social problems.

**474 19th Century Political Thought (4)**

Prereq: 15 hrs political science or European history. *W. Elsbree*. Movements in 19th century political thought in Europe; liberalism, socialism, irrationalism among subjects covered.

**475 Studies in Political Thought (5)**

*F. Henderson, R. Hunt*. Selected topics in political theory; e.g., anarchism, socialism, democratic theory, technology and politics, etc. Consult department for information pertaining to current course description and schedule.

**476A American Political Thought (4)**

Prereq: 11 hrs of political science or history. *A. Prisley*. Origin and development of political ideas from colonial period through slave controversy.

**476B American Political Thought (4)**

Prereq: 11 hrs of political science or history. *A. Prisley*. Continuation of 476A but can be taken independently. Begins with Social Darwinism and concludes with contemporary political ideas in America.

**478 Feminist Political Thought (4)**

Prereq: jr or sr rank. *J. Huntley*. Examines relationship between feminist thought and women's movement. Deals with topics such as emergence of feminist political thought, its antecedents, and current writings.

**479 Latin American Political Thought (4) (2T)**

Prereq: jr or sr rank or perm. *T. Walker*. Evolution of Latin American political thought from conquest to present. Major emphasis on 20th century movements such as the Democratic Left, the progressive Catholic Left, and the Marxist Revolutionary Left.

**481 Modern Political Analysis (5)**

Prereq: 20 hrs, perm. *D. Dabelko*. Examination of problems of knowledge in social sciences with particular emphasis on political

science. Analysis of major theories or approaches developed in political science recently.

#### 482 Quantitative Political Analysis (5)

*D. Dabelko.* Designed to show relevance of scientific research techniques to study of politics.

#### 485 Personality and the Political Process (5)

Prereq: 15 hrs or perm. *D. Dabelko.* Relevance of personality characteristics, psychological mechanisms, and life history factors in explaining political behavior. Topics are behaviorism, psychoanalytic theory, authoritarianism, dogmatism, and other personality traits as related to political beliefs and behavior.

#### 490 Studies in Political Science (3-5)

Prereq: 11 hrs, perm. Intensive study of special topics in field of political science, including American government and politics, comparative government, international relations, political theory, and public administration.

#### 491 Research in Political Science (1-5, max 10)

Prereq: 18 hrs and advance perm of instructor. Research in selected fields of political science.

#### 495 Public Affairs Internship (1-15)

Prereq: perm only. *M. Weinberg.* Provides qualified students with opportunity to learn through working in selected public and private agencies.

#### 498 Problems in Political Science (1-5, max 10)

Prereq: 18 hrs and advance perm of instructor. Research or directed reading based on student's special interest

## PORTUGUESE

See Foreign Languages and Literatures

## PSYCHOLOGY

The Psychology Department offers both a major and a minor program. The major requirement for the A.B. degree in psychology consists of a minimum of 50 quarter hours and a maximum of 72 hours. PSY 101, 121, and 226 are required. In addition, a minimum of two courses is required from each of the following four areas: (a) 173, 275, 307, 315, 374, 376, 390\*, 448, 490\*\*; (b) 301, 303, 304, 311, 312, 314, 327, 390\*, 490\*\*; (c) 310, 332, 333, 351, 390\*, 490\*\*; (d) 241, 261, 335, 336, 337, 390\*, 490\*\*. At least four courses must be completed at the 300 level or above. PSY 321 is highly recommended for all psychology majors, particularly those who plan to attend graduate school.

The minor in psychology consists of a minimum of 30 hours with at least two courses at the 300 level. PSY 101 is required. In addition, at least one course is required from each of the following four areas: (a) 173, 275, 307, 315, 374, 376, 448, 490\*\*; (b) 121, 226, 301, 303, 304, 311, 312, 314, 327, 490\*\*, (c) 310, 332, 333, 351, 490\*\*, (d) 241, 261, 335, 336, 337, 490\*\*.

Besides the regular major and minor options, programs leading to teacher certification in psychology are available. Students may receive minor certification to teach social psychology at the secondary school level by meeting the following requirements: (1) completing certification requirements in a major teaching field (for complete specification of these fields contact the College of Education) and (2) completing the following courses in psychology: 121, 226, 304, 333, 336, and five hours from among 241, 311, 315, 376 or any 490 seminars in developmental or social psychology.

A limited number of students may receive major certification to teach social psychology at the secondary level by the following process: (1) completing the following courses in psychology: 101, 121, 226, 241, 275, 304, 333, 336, five hours from PSY 307, 311, 312, and ten hours from PSY 173, 310, 315, 332,

351, 376, or seminars in developmental or social psychology; (2) completing minor certification in some second teaching field. For further information on the program, criteria for acceptance, and procedures for application, check with the Department of Psychology or the College of Education.

For qualified students, the department offers both a departmental honors program and an honors tutorial program. General descriptions of these two programs may be found in the *Honors Tutorial College* section of this catalog. A detailed description of the psychology honors program is available from the Psychology Department. Students should apply to the assistant chairperson for undergraduate affairs for admission to departmental honors. A detailed description of the psychology honors tutorial program is available from either the Psychology Department or the Honors Tutorial College. Students should apply to the Honors Tutorial College for admission to the psychology tutorial program.

Requirements for all psychology programs are structured to provide students with exposure to several areas of psychology while providing latitude in selecting courses to fit students' needs and interests. Students are encouraged to consult their academic advisors early in their programs to plan appropriate course selections. Early consultation with an advisor is particularly recommended for students who are considering graduate work in psychology.

At the graduate level, the department offers doctoral programs in clinical and experimental psychology and master's programs in experimental and school psychology. Students who are interested in pursuing a graduate degree in the department may receive a brochure and additional information about the graduate programs from the assistant chairperson for graduate affairs.

\* 390 research hours may be applied only once and to only one area. At least four hours of 390 must be completed before it can be used to count for an area requirement, however, it is not necessary to earn all four hours at one time.  
\*\* 490 seminars may be applied to these area requirements if approved by the assistant chairperson for undergraduate affairs.

#### 101 General Psychology (5) (2S)

Introduction to psychology dealing primarily with learning, sensory processes, social and clinical psychology.

#### 121 Elementary Statistics for the Behavioral Sciences (5) (1M)

Prereq: MATH 113 or 2 yrs h.s. mathematics. Measures of central tendency, variability, correlation, and simple tests of hypotheses.

#### 131 Psychology of Adjustment (4) (2S)

Prereq: 101. Dynamics, development, and problems of human adjustment. Does not count toward meeting any departmental major or minor requirements.

#### 173 Child and Adolescent Psychology (5) (2S)

Prereq: 101. Behavior from infancy through adolescence. No credit awarded if HECF 160 or EDEL 200 has been taken.

#### 226 Experimental Psychology (5)

Prereq: 121. Training in scientific methods and techniques of modern experimental psychology with individual reports of experiments.

#### 241 Behavioral Measurement (5)

Prereq: 101 and 121. Tests, psychophysical methods, scaling techniques, and questionnaires. Basic criteria, including reliability, homogeneity, and validity.

#### 261 Industrial Psychology (5)

Prereq: 101 and 121. Applications of psychology in business and industry.

#### 275 Educational Psychology (5) (2S)

Prereq: 101. Psychological foundations of education, with major emphasis upon learning, transfer, motivation, and evaluation. No credit awarded if EDCI 275 has been taken.

#### 301 Experimental Sensory Psychology (5)

Prereq: perm. Sensory processes, including vision, audition, gustation, olfaction, and somesthesia.

### 303 Learning (5)

Prereq: 121 and 226. Experimental investigation of classical and instrumental conditioning, discrimination learning, generalization, related phenomena.

### 304 Human Learning (5)

Prereq: 101 and 121 or perm. Theoretical and experimental investigations of learning in human beings; concept learning, problem solving, memory, motor skills, and language.

### 307 Psycholinguistics (4)

Prereq: 101, perm. How people produce, understand, and acquire language; psychological and linguistic theories. Emphasis on use of language.

### 310 Motivation (5)

Prereq: 10 hrs of psychology. Survey of theories of motivation, with emphasis on human motivation.

### 311 Perception (5)

Prereq: 101, perm. Theory and research on perception with emphasis on auditory and visual modalities. Basic process; perception of objects, space, movement, and events; effects of attention, set, and values; perceptual development.

### 312 Physiological Psychology (5)

Prereq: perm. Relationships between integrated behavior and bodily processes in intact organism.

### 314 Comparative Psychology (5)

Prereq: 101. Behavior of animals across phylogenetic scale. Interaction of genetics, hormones, learning, etc., in development of behavior. Lecture, lab, field trips, and naturalistic movies.

### 315 Individual Differences and Behavior Genetics (5)

Prereq: 101. Extensive survey of individual differences and their relationship to genetic factors. Topics include chromosomal abnormalities, inborn errors of metabolism, genetic and prenatal screening, behaviors in infant, genetics and intellectual differences, psychopathology and genetics, racial differences, and continuing evolution of behavior.

### 321 Experimental Design and Analysis (5)

Prereq: 102 or perm. Integration of a variety of statistical procedures beyond the elementary statistics level with experimental designs. Emphasis on understanding the appropriate use of analytic techniques and interpretation of results. Does not apply to the Arts and Sciences social science or natural science requirement.

### 327 Human Psychophysiology (5)

Prereq: perm. Relationships between psychological variables and physiological events in humans.

### 332 Abnormal Psychology (5) (2S)

Prereq: 101. Behavior disorders, their cause, and effects on person, family, and society.

### 333 Psychology of Personality (5)

Prereq: 101. Development and organization of personality, with evaluation of major theoretical viewpoints; research on personality structure, dynamics, and change.

### 335 Environmental Psychology (4)

Prereq: 101. Natural and built environments of everyday as factors of human behavior, cognition, and choice. Research concerning environmental design and evaluation from psychological standpoint emphasized.

### 336 Social Psychology (5)

Prereq: 101. Behavior of man as influenced by group membership, with emphasis on individual's interaction as basis of change of motives, attitudes, and personality.

### 337 Social Psychology of Justice (5)

Prereq: 101 (336 recommended). Social and developmental study of acquisition of justice concepts, cultural norms of justice, personality and social interaction influencing perception of justice in civil and criminal justice systems.

### 351 Introduction to Clinical and Counseling Psychology (5)

Prereq: 332 or 333. Diagnostic and remedial procedures and resources; professional problems, duties, skills, and interpersonal relationships.

### 374 Psychology of Adulthood and Aging (4)

Prereq: 101 or perm (173 recommended). Behavioral change and continuity over the adult years through old age. Emphasis on the interaction of psychological, sociocultural, and biological variables as they contribute to the behaviors of the aging individual from the perspective of a developmental framework.

### 376 Psychological Disorders of Childhood (5)

Prereq: 173 or HECF 160 or EDEL 200. Characteristics, etiology, and treatment of abnormal child behavior: developmental problems, neuroses, psychoses, behavior disorders, exceptional intellectual abilities, psychophysiological disorders.

### 390 Research in Psychology (1-5, max 15)

Prereq: 226, written perm. Supervised independent research on predefined problem.

### 448 Psychology of Speech (4)

Prereq: See INCO 452.

### 489 Fieldwork in Psychology (1-5, max 5)

Prereq: written perm. Independent fieldwork as volunteer or employee in work directly related to psychology. Arrangements for course credit must be approved by psychology faculty member before fieldwork begins. Contact assistant chairperson for undergraduate affairs or other faculty member to complete necessary forms. Graded credit/no credit.

### 490 Seminars in Psychology (3-5)

Prereq: dependent on seminar; perm required. Several seminars on specific topics in psychology will be offered yearly, carrying predetermined alphabetical designations (e.g., 490A). See specific exceptions under Catalog Numbers at beginning of this section. See Schedule of Classes for description each qtr.

### 491 Special Problems in Psychology (1-15)

Prereq: written perm. Independent work on special problem with any psychology professor.

### 492 Special Problems – Psychology (1-15)

Prereq: Study Abroad Program; perm.

### 496H Psychology Honors Seminar (3-5)

Prereq: perm, admission to departmental honors program. Seminar on specific topics. See Schedule of Classes each qtr.

### 497H Readings in Honors Work (1-4, max 10)

Prereq: perm.

### 498H Honors Work in Psychology (1-4, max 10)

Prereq: perm. Preparation for 499H.

### 499H Honors Work in Psychology (Thesis) (3-7, max 15)

Prereq: perm.

## QUANTITATIVE METHODS

The quantitative methods major allows for flexibility in designing a program to suit the student's wishes.

In addition to the B.B.A. degree requirements, a student majoring in quantitative methods must complete 24 hours of 300-level or 400-level quantitative methods courses. At least one four-hour course shall be in each of the following areas: operations research and statistics. The other 16 hours, subject to an advisor's approval, may be elected to gain depth in one of these areas.

A closely related major is computer systems in business. For a full description of the requirements for that major see the earlier section of this catalog, describing all programs offered in the College of Business Administration.

NOTE: Of the courses listed below, only QM 200, 201, 401, 435, 330, 454, 491, and 497 are offered each year, and the

quarters in which they are offered are indicated in parentheses in the course description. For courses marked with an asterisk (\*), students should check with the department to learn when they will be taught.

#### **200 Introduction to Business Data Analysis (4)**

Prereq: MATH 163A,B. (fall, winter, spring, summer) Introduction to computer data analysis through use of SPSS package of statistical computer programs. Descriptive statistics. Introductory study of probability, random variables, expectations, and variances. Covers well-known discrete and continuous probability distributions.

#### **201 Introduction to Probabilities and Statistics (4)**

Prereq: 200. (fall, winter, spring, summer) Sample designs, sampling distributions of sample statistics, and estimation (point and interval) of parameters. Bayesian and classical (hypothesis testing) decision theory. Contingency table analysis and analysis of variance. Regression and correlation analysis. Use of library computer programs where appropriate.

#### **330 COBOL Programming (4)\***

Prereq: soph or perm. (fall, winter) Introduction to business-oriented computer language COBOL.

#### **401 Operations Research (4)**

Prereq: 201. (fall, winter, spring) Introductory survey of techniques of operations research, viewed as part of applied decision theory. Applications in fields of accounting, production, finance, and marketing stressed. Such topics as inventory models, linear programming, network analysis, scheduling models, and simulation.

#### **403 Statistical Quality Control (4)\***

Prereq: 201. (spring; odd years) Application of sampling theory to quality control: in process control (*i.e.*, control charts) and sampling inspection (*i.e.*, attribute and variable).

#### **420 FORTRAN Programming (4)\***

Prereq: jr rank or above or perm. Use of computer in organizations to store, process, and deliver data using FORTRAN language to solve business problems. (CS 201 is equiv to this course.)

#### **425 Advanced FORTRAN (4)**

Prereq: 420, or CS 201, or equiv. (winter; even years) Deals with application of FORTRAN programming language to problems in marketing, finance, management, accounting, and economics.

#### **434 Design of Experiments (4)\***

Prereq: 201 or perm. Nested, split plot; replicated designs; multi-factor experiments; compounding; fractional factorials; analysis of covariance

#### **435 Advanced COBOL (4)**

Prereq: 330. (winter, spring) Deals with application of COBOL programming language to problems in marketing, finance, management, accounting, and economics

#### **438 Nonparametric Statistics (4)\***

Prereq: 201 or perm. Appropriate statistical tests; power; asymptotic efficiency, parametric vs. nonparametric; Fisher's randomization method, run test, multisample tests; one-way ANOVA and two-way ANOVA, miscellaneous tests

#### **445 Forecasting Business Trends (4)**

Prereq: 201 or perm. (spring; even years) Forecasting techniques and methodologies considered as tools decision-makers use to provide basis for determining nature of future environments in which business will have to operate. Forecasting is means for integrating total corporate planning with technical marketing and financial planning

#### **451 Statistical Survey Techniques (4)\***

Prereq: 201 or equiv. Techniques of small sample tests applied in opinion polling, business, economics, and government

#### **454 Intermediate Probability Theory (4)**

Prereq: 201 or equiv. (fall) Random variables — moment gen-

erating functions and expected multidimensional (continuous and discrete), values, limiting theorems.

#### **455 Statistical Inference (4)**

Prereq: 454 or perm. (winter) Estimation, tests of hypothesis, sampling, analysis of variance, design of experiments.

#### **456 Regression Analysis (4)\***

Prereq: 455 or perm. Time series analysis, game theory, regression and correlation analysis, and introduction to decision making.

#### **461 Bayesian Statistics (4)\***

Prereq: 454. Probability and statistics taught from Bayesian point of view.

#### **485 Simulation (4)**

Prereq: 401 or perm. (spring; even years) Development of models of complex management decision environments and their manipulation via computer simulation. GPSS programming language. Interpretation of simulation results. Applications to problems in marketing, finance, and production.

#### **490 Systems and Procedures (4)**

Prereq: 420 or CS 201, 330, or perm. (winter) Study of detailed methods for collecting, organizing, and evaluating information to improve operations of an organization.

#### **491 Seminar (1-5)**

Prereq: perm. Selected topics of current interest in quantitative methods area.

#### **497 Independent Research (1-15)**

Prereq: perm. Research in selected fields of quantitative methods under direction of faculty member.

## **RADIO-TELEVISION**

#### **105 Introduction to Mass Communication (4) (2S)**

Development, structure, functions, processes, control, and effects of mass media. 4 lec. Identical to JOUR 105 and INCO 105.

#### **106 Introduction to Radio-Television (4)**

History, organization, structure, and function of electronic communication media.

#### **121 Radio Performance (2)**

Responsibilities and skills required of radio performer; practice in performance techniques for radio. 4 lab.

#### **170 Media Perspectives (4) (2S)**

Studies impact of electronic mass media through examination of uses, forms, themes, and implicit values. Combines lecture, discussion, and analysis of personal media uses.

#### **200A Broadcast Writing and Production Planning (4)**

Prereq: soph rank. Introduction to nondramatic script writing in radio and television. Examination of elements of preproduction preparation for broadcast programs.

#### **200B Introduction to Radio Production (2)**

Prereq: 200A. Basic elements of radio program production and direction. Introduction to basic radio production skills.

#### **200C Introduction to Television Production (2)**

Prereq: 200A. Basic elements of television program production and direction. Introduction to basic television production skills.

#### **208 Technical Bases of Radio-Television (4)**

Principles of electronic reproduction and transmission of aural and visual signals, functions of broadcast equipment.

#### **270 Broadcasting and the Public (4)**

Prereq: soph rank. Interrelationships among broadcaster, government, and public, evaluation of broadcasting's influence on society and impact of public pressure on broadcasting

**317 TV Studio Operations (1)**

Prereq: 200C. Practical television studio experience with ACTV academic production unit.

**322 Television Performance (4)**

Prereq: 200C and audition. Advanced exercises in television performance stressing special problems of video performer.

**355 Broadcast Programming (4)**

Prereq: jr rank. Radio and television programming principles and practices; analysis and evaluation of programs and program formats.

**390 Practicum (1)**

Prereq: R-TV majors and premajors only. Practical experience in Ohio University broadcasting facilities. May be repeated for max of 6 credits.

**405 Research Internship (1-9)**

Prereq: acceptance by competition only. Opportunity for students to implement and complete major research study under supervision.

**413 Advanced Radio Production-Direction (4)**

Prereq: 200B, jr rank. Advanced techniques for production of audio materials. Investigation of special problems in radio program development.

**417 Television Production-Direction (4)**

Prereq: 200C, 317, jr rank. Basic video esthetics. Laboratory experience in production and direction of television studio projects.

**418 Advanced Television Production-Direction (4)**

Prereq: 417 and perm. Development and production of projects as requested by Telecommunication Center for use by WOUB-TV.

**419 Advanced Television Production-Direction (4)**

Prereq: 417. Special projects in television production.

**421 Nonbroadcast Video Systems (4)**

Prereq: 200C, jr rank. Exploration of various applications of small systems, focusing on production and operational elements. Study of utilization in business, medicine, and instruction.

**431 Dramatic and Documentary Writing (4)**

Prereq: jr rank. Writing and critique of form, structure, and presentation of both dramatic and nondramatic programs and series.

**432 Advanced Dramatic and Documentary Writing (4)**

Prereq: 431 and perm. Advanced writing course in which experienced student creates substantive scripts in documentary and dramatic areas.

**440 Radio and Television in Education (4)**

Prereq: sr rank. Historical development, current status, and challenges to public broadcasting.

**441 Instructional Methods in Educational Radio-Television (4)**

Prereq: sr rank. Utilization of television in instruction: instructional television, commercial TV for instruction; and critical viewing skills.

**452 TV Newsfilm Production and Editing (3)**

Prereq: jr rank. Principles and practices of video production and editing for television news. Identical to JOUR 452.

**453 Broadcasting Law and Regulations (4)**

Prereq: jr rank. Socio-political control of broadcasting; effects of law and regulations upon broadcast station policies.

**459 Audience Research (4)**

Prereq: sr rank. Various methods, techniques, and applications of audience study in broadcasting; includes a study of current rating services.

**460 Broadcast Management (4)**

Prereq: 355 or perm. Intensive overview of bases of broadcast

management; includes concepts relating to management theory, personnel motivation, organizational communication, and management's relationship to various aspects of station operation.

**461 Electronic Media Management I (4)**

Prereq: 460 or perm. Consideration of fiscal problems in operation of radio, television, and cable industries, with special emphases on broadcast economics and financial policies.

**462 Electronic Media Management II (4)**

Prereq: 460 or perm. Consideration of policies and practices with reference to sales management in radio and television stations.

**467 Comparative Systems of Broadcasting (4)**

Prereq: sr rank. Analyses of national broadcasting systems in terms of relevant political, social, economic, and cultural influences.

**470 Mass Communication Theories (4)**

Prereq: sr rank. Readings course surveying literature in mass communication theory. Special emphasis on electronic media.

**471 Effects of Mass Communications (4)**

Prereq: 470. Readings course designed to acquaint students with major areas of experimental research in individual and social effects of mass media.

**479 History of Broadcasting (4)**

Prereq: jr rank. Origin of systems of radio and television communication and their development to present.

**490 Internship in Broadcasting (12)**

Prereq: sr rank and perm. Broadcast or related industry experience under auspices of cooperating organization, with paper submitted detailing intern's experiences.

**498 Special Problems (1-4, max 12)**

Prereq: written proposal and perm.

**499 Independent Readings in Radio-Television (1-4, max 12)**

Prereq: written proposal and perm.

## Radio-Television (Associate Degree)

*The following R-TV courses are available only at the Zanesville campus for the A.A.S. program in radio-television.*

**122 Radio-Television Performance (4)**

(winter) To provide overview of responsibilities required for radio and television announcing, and to provide practice and performance situations necessary to develop proficiency in performance skills.

**209 Basic Radio-Television Technology (4)**

Prereq: 208. (fall and winter: even years) Initiate study and understanding of principles of radio-television electronics as required by FCC regulations. Content includes sample materials and study for 2nd class FCC license.

**210 Advanced Radio-Television Technology (4)**

Prereq: 209. (spring: even years) Continuation of 209, including study materials pertaining to 1st class FCC license.

**211 Radio Production-Direction (4)**

Prereq: 208. (fall) Principles of basic radio production and development of criteria for evaluation of radio production. 2 lec, 4 lab.

**214 Advanced Audio Production/Performance (2)**

Prereq: 211. (spring) Innovative techniques for production and performance of audio materials. Investigation and analysis of audio production development, and individual problems.

**216 Introduction to Television Production (4)**

Prereq: 208. (fall) Principles of basic television production and

development of criteria for evaluation of television production. 2 lec. 4 lab.

### **217 Advanced Television Production (4)**

Prereq: 216. (spring) Applications of basic studio production with emphasis on innovative techniques. 2 lec, 4 lab.

### **230 Broadcast Continuity (4)**

(winter) Principles of writing for commercial and noncommercial broadcasting. 4 lec.

### **290 Broadcast Practicum (1)**

Prereq: R-TV major. Production or technically related assignments monitored and supervised within broadcast related services of OU Zanesville. Requires minimum number of assigned hrs of tasks per wk during school terms.

## **REAL ESTATE TECHNOLOGY**

Real estate courses are available on the Athens campus through the Extension Division Office and at the regional campuses through the Continuing Education Offices. An associate of applied business (A.A.B.) degree in real estate technology is available at the Chillicothe campus.

### **101 Real Estate Principles and Practices I (4)**

Real property is the basic resource with which real estate professionals work. Course includes, but is not limited to: land and its description, rights and interests in real estate, contract law and real estate contracts, title transfer, deeds, leases, financing and mortgages, taxes, home ownership, urban planning, brokerage operations, appraisal and value, applied real estate math, and Ohio requirements for real estate licenses.

### **102 Real Estate Brokerage (4)**

Prereq: 101 or perm. Expands on 101 and includes: specialized fields of real estate, principal-agent relationship, listing principles and practices, closing principles and practices, sales contract, principles of economics and real estate appraising, property insurance, real estate finance, federal laws regulating real estate practice, mathematics in real estate, and other facets of real estate needed by real estate professional; Ohio licensing laws and requirements

### **103 Real Estate Law (4)**

Prereq: 101 Includes all legal areas commonly concerned with typical real estate professional. Among topics covered are law of agency as applied to real estate brokers and salesmen, law of fixtures, estates, conveyancing of real estate, mortgages and liens, license laws of Ohio, and zoning.

### **201 Real Estate Appraising I (4)**

Deals with appraisal theory, basic principles affecting value of real property, data accumulation and analysis of city, neighborhood, site, and property; applied techniques and estimating value from three approaches, building analysis, depreciation; entire range of appraisal process, and preparation based on field experience of preparing single family residential appraisal report.

### **202 Real Estate Appraising II (4)**

Prereq: 201 Built on foundation of 201. Some topics are: data program, data classification and analysis, applying to cost approach, market data approach and income approach; indicated value correlation of value indications, final estimate of value

Process or steps leading to appraisal report and validated data basic to mature judgment as to forces heretofore mentioned, directly or interweaving, will enable appraiser to present word portrayal of property facts concerning that property and reasoning by which he or she has developed estimate of value

### **204 Real Estate Finance (4)**

Prereq: 101 Includes institutions, methods, instruments, and procedures involved in financing of real estate, nature and characteristics of mortgage loans, government influence on real

estate finance, and nature of mortgage market. Effects of monetary and fiscal policies on real estate financing considered.

### **207 Real Estate Marketing and Management (4)**

Prereq: MGT 300 and MKT 301. Twofold emphasis: marketing, which deals with estate transfer, matching of supply and demand, and sale of real estate as commodity; and management, which deals with means of obtaining highest and best use of land, achievements of maximum returns, as well as proper methods of accounting and record keeping. Student should increase his or her competency as consultant in use and reuse of land in its economic, social, and governmental contribution to society.

### **211 Real Estate and Government (4)**

Prereq: 101 or POLS 101. Such contemporary economic problems and issues as: unemployment, cost of inflation, poverty, guaranteed annual income, national debt, national health insurance, urban renewal, urban transportation, federal revenue sharing, consumer credit, aid to developing nations, and other topics rating newspaper and magazine headlines requiring study and judgment for decisions.

### **221 Real Estate — Special Topics (4)**

Prereq: 204. Special topics in real estate covered. Areas include professionalism, ethics, salesmanship, human relations, F.H.A. and V.A. financing. Real estate office, advertising, building construction and materials, current issues, and problems facing real estate professional also considered.

## **RESERVE OFFICERS TRAINING**

See Aerospace Studies or Military Science.

## **RUSSIAN**

See Foreign Languages and Literatures.

## **SECRETARIAL TECHNOLOGY, GENERAL**

The following courses for the A.A.B. program in general secretarial technology are available only on the Chillicothe and Lancaster campuses.

### **111 Beginning Shorthand (3)**

Introduction to theory of shorthand with emphasis on writing correct theory and developing reading rates. 3 lec, 2 lab.

### **112 Intermediate Shorthand (3)**

Prereq: 111. Continuation of Shorthand I, completing theory, and developing skills of taking dictation and elementary transcription. 3 lec, 2 lab.

### **113 Advanced Shorthand (3)**

Prereq: 112. Theory and speed building. Emphasis on developing speed in dictation and accuracy in transcription. 3 lec, 2 lab.

### **121 Beginning Typewriting (3)**

Introduction to touch typewriting system with emphasis on correct techniques, mastery of keyboard, simple business correspondence, tabulation, and manuscripts. 3 lec, 2 lab

### **122 Intermediate Typewriting (3)**

Prereq: 121 Emphasis on production typing problems and speed building. Attention given to development of student's



ability to function as an expert typist producing mailable copies. Production work involves tabulations, manuscripts, correspondence, and business forms. 3 lec, 2 lab.

### 123 Advanced Typewriting (3)

Prereq: 122. Advanced typing problems and techniques, knowledge and skills involved in production typewriting. Designed to acquire maximum in production for high-level office employment. 3 lec, 2 lab.

### 131 Secretarial Communications (3)

Review of basic English grammar with emphasis on improving capitalization and punctuation for more effective business-letter writing.

### 141L Legal Secretarial Terminology (2)

Prereq: 111, 121. Intensive course of study in legal terminology and vocabulary, including definitions, usage, derivations and spelling. 2 lec.

### 141M Medical Secretarial Terminology (2)

Prereq: 111, 121. Structure of medical words and terms. Emphasis on spelling and defining commonly used prefixes, suffixes, root words, and their combining forms. 2 lec.

### 171G General Secretarial Procedures I (3)

Prereq: 111, 121. Instruction in general office practices and general office filing. Emphasis on general rules and procedures in filing and records management along with general office routines. Personality development also discussed thoroughly. 3 lec, 2 lab.

### 171L Legal Secretarial Procedures I (3)

Prereq: 111, 121. Instruction in legal office practices and legal office filing. Emphasis on general rules and procedures in filing and records management along with general office routines. Personality development also discussed thoroughly. 3 lec, 2 lab.

### 171M Medical Secretarial Procedures I (3)

Prereq: 111, 121. Instruction in medical office practices and medical office filing. Emphasis on general rules and procedures in filing and records management along with general office routines. Personality development also discussed thoroughly. 3 lec, 2 lab.

### 172G General Secretarial Procedures II (3)

Prereq: 171G. Emphasizes machine transcription utilizing complete production units concerning various industrial correspondence and documents. 3 lec, 2 lab.

### 172L Legal Secretarial Procedures II (3)

Prereq: 171L. Emphasizes machine transcription utilizing complete production units concerning legal correspondence and documents. 3 lec, 2 lab.

### 172M Medical Secretarial Procedures II (3)

Prereq: 171M. Emphasizing machine transcription utilizing complete production units concerning medical correspondence and documents, such as case histories, articles, and hospital reports. 3 lec, 2 lab.

### 189 Independent Study (1-5)

Prereq: perm. Studies in selected subject areas in secretarial field. May be repeated up to 5 credit hrs.

### 231 Office Machines (3)

Instruction and practice in operation of modern office machines and equipment including adding, duplicating and calculating machines. 1 lec, 5 lab.

### 241G General Dictation and Transcription I (3)

Prereq: 113, 123. Development of shorthand skills with emphasis on mailable copy. 3 lec, 2 lab.

### 241L Legal Dictation and Transcription I (3)

Prereq: 113, 123. Legal secretary preparation. Skill in taking dictation and transcribing material involving legal shorthand forms and phrases. Proficiency in use of legal vocabulary, forms, and procedures. 3 lec, 2 lab.

### 241M Medical Dictation and Transcription I (3)

Prereq: 113, 123. Medical secretary preparation. Skill in taking dictation and transcribing material involving medical shorthand

forms and phrases. Proficiency in use of medical vocabulary, forms, and procedures. 3 lec, 2 lab.

### 242G General Dictation and Transcription II (3)

Prereq: 241G. Furthering of skills in taking dictation and transcribing various forms of correspondence. 3 lec, 2 lab.

### 242L Legal Dictation and Transcription II (3)

Prereq: 241L. Further development of skills in taking dictation and transcribing legal documents, instruments, and letters rapidly and accurately. 3 lec, 2 lab.

### 242M Medical Dictation and Transcription II (3)

Prereq: 241M. Further development of skills in taking medical dictation related to various types of medical correspondence such as case histories, articles, and hospital reports. 3 lec, 2 lab.

### 249 Internship I (3-5)

Prereq: 123, 231, 241. Practical field experience or in-class office simulation. 14-35 lab.

### 250 Seminar I (2)

Prereq: concurrent with 249. Special topics and problems encountered in field experience discussed. Opportunity to share ideas and experiences and to find possible answers to questions arising in actual working situations.

### 262 Report and Letter Writing (4)

Prereq: 122 and ENG 150 or equiv. Extensive and detailed practice in written communication using techniques utilized in business, industry, and professions involving composition of letters, memoranda, reports. 4 lec.

### 269 Office Administration (3)

Prereq: 123, 113, 172. Involves principles and practices of management of flow of information within an enterprise. Includes basic management functions of planning, controlling, organizing, and coordinating as applied to office services, physical facilities, systems and procedures, work measurement and standards, and business information systems. 3 lec.

### 289 Special Topics (1-5)

Prereq: perm. Projects concerning secretarial field explored on 1-to-1 basis with instructor.

### 293 Seminar II (2)

Concurrent with 299. Continuation of discussion concerning special topics and problems encountered in field experience. 2 lec.

### 299 Internship II (3-5)

Prereq: 249. Practical field experience or in-class office simulation continued. 14-35 lab.

## SECURITY/SAFETY TECHNOLOGY

### 101 Introduction to Protective Services (3)

Introductory course designed to give an overview of many facets of private security profession. Student will be able to relate private security's function to its proper perspective in today's complex society and to see where private security and its various functions fit into criminal justice system.

### 110 Physical Security Systems (3)

Physical security requirements and standards. Course includes study of various physical security systems plus technical devices employed in industrial, retail, and institutional security operations.

### 120 Occupational Safety and Health (3)

Analysis and implementation survey of federal laws pertaining to occupational safety and health standards and criteria.

### 201 Fire Safety and Fire Codes (4)

Function and objective of fire prevention programs, i.e., recognition and correction of fire hazards; enforcement of codes and

ordinances; knowledge of federal, state, and local fire laws and codes. Further emphasis on fire prevention and fire protection.

#### **210 Loss Prevention in Modern Retailing (3)**

Detailed study of use of proper controls in loss prevention and loss detection in retailing industry. Emphasis to provide students with sound background for determining their needs in such areas as: physical security, inventory security, security surveys, personal screening, risk analysis, and loss prevention as total systems approach.

#### **220 Analysis of Security Needs – Survey (3)**

Methodology used in making security surveys, i.e., selection of scope, team composition, design of survey, compiling data, evaluation of planning, implementation, and results of corrective measures.

#### **230 Information and Data Systems Security (3)**

Introduction to theory and application of automated information data systems. Detailed study of security hazards involved in use of data systems. Laws pertaining to Right to Privacy Act included as part of course content.

#### **240 Security Administration (3)**

Introduction to corporate security administration including historical and legal framework for security operations as well as detailed presentations of specific security processes and programs utilized in providing security.

#### **250 Current Problems in Security (3)**

Analysis of special problem areas in security such as: security education and training, community relations, labor problems, and disaster planning. Other specific areas analyzed for further research by individual students depending upon their interest. These later areas may include bank security, campus security, computer security, hospital security, and various other areas.

#### **260 Analytical Accounting (3)**

Specifically designed for security administration majors. Covers areas such as audit tracing, cash flow analysis, inventory system analysis, and other auditing principles used to protect assets and discover losses.

#### **290A-Z Special Area Studies (3-4)**

Courses designed to provide flexibility to satisfy needs of particular industry in our area or of an individual student who would like to pursue further study in a specialized area.

## **SOCIAL WORK**

The Department of Social Work offers a flexible interdisciplinary curriculum designed to meet the requirements of students desiring to pursue professional careers in social work. Students completing the program will receive the A.B. degree with a major in social work. The Department of Social Work is fully accredited by the Council on Social Work Education. Graduates are qualified for full membership in the National Association of Social Workers.

The requirements consist of a minimum of 48 hours of courses taken within the department, including: SW 290, 391, 392, 393, 394, and the sequence in social work practice, SW 490A, 490B, 490C. A student seeking to enroll in the practice sequence should: a) be a social work major, b) have a 2.5 or above accumulative grade point average, c) have had either volunteer or paid experience in an area of social welfare, and d) have made substantial progress in the completion of the social sciences requirements.

Additionally, the requirements for a major in social work consist of the following courses, taken outside the department: ZOOL 103, Human Biology, PSY 121, Elementary Statistics or SOC 350, Social Statistics, SOC 351, Elementary Research Techniques, PSY 173, Child and Adolescent Psychology, and PSY 332, Abnormal Psychology or PSY 336, Social Psychology. In addition to these 42 hours must be taken in the social sciences, including one course in each of the following: anthropology, economics, political science, psychology, and sociology.

#### **101 Introduction to Social Welfare and Social Work (3) (2S)**

Overview of field of social welfare with equal emphasis on fundamental concepts and services in social welfare and current and emerging tasks in profession of social work.

#### **290 The American Social Welfare System (4) (2S)**

Prereq: ECON 101 recommended. Nature of social welfare as social institution, stressing scope of social welfare activity; historical development; value orientation; response to critical social problems, issues in social policy, and emergence of social work as profession.

#### **380 Child Abuse and Neglect (3)**

Prereq: jr or sr rank plus 18 hrs in social science. Examines processes of identification, reporting, referral, and case management of child abuse and neglect cases. Multidisciplinary approach to these processes described.

#### **391 Social Security System (4)**

Prereq: 290 or perm. Programs, policies, and problems related to prevention and alleviation of economic insecurity in U.S. Special emphasis placed on social insurance and public assistance programs with evaluation of proposals for change.

#### **392 Contemporary American Social Services (4)**

Prereq: 290 or perm. Development of specific social services to meet human needs and evaluation in terms of their relevancy and adequacy in our present society. Individual studies in areas of particular interest (i.e., child welfare, mental health, etc.).

#### **393 Dynamic Human Behavior I (4)**

Prereq: PSY 173. 1st in a 2-course sequence designed to present holistic approach to assessing human social functioning with emphasis on human diversity and integration of knowledge of human behavior fundamental to practice of social work. Particular attention given to interaction of individual and social environment in relation to development and social functioning throughout phases of life cycle.

#### **394 Dynamic Human Behavior II (4)**

Prereq: 393 and PSY 332 or 336. Expands on 393 and includes: exploration of various theoretical approaches to human behavior, assumptions upon which they are based and value questions arising in applying theory to practice; analysis of dysfunctions in personal and social systems in view of interrelatedness of these systems.

#### **395 Aging in the Welfare State (4)**

Prereq: jr rank; plus 18 hrs in social sciences. Review of available knowledge on social life and problems of aged in America. Attention devoted to social welfare policies and services designed to meet needs of elderly.

#### **396 Comparative Social Welfare Systems (3)**

Prereq: 8 hrs of social welfare. Examination and comparison of social welfare problems and response-systems in various nations. Particular attention given to alternative modes of social service delivery.

#### **490A Social Work Practice (8)**

Prereq: 391, 392, 394, and perm. (fall) 1st of 3-qr sequence offering field placement, laboratory, and twice-weekly class. This qtr focuses on context of social work practice, application of social work's ethical value system, communication, and development of analytical skills for engaging in problem-solving process.

#### **490B Social Work Practice (10)**

Prereq: 490A and perm. (winter) Continuation of field placement with increased time in placement and practice laboratory from previous qtr and twice weekly class. Focus on phases of problem solving process beginning with contact phase through implementation phase.

#### **490C Social Work Practice (10)**

Prereq: 490B and perm. (spring) Continuation of previous qtr's field placement and practice lab with twice weekly class. Final phases of problem solving process, evaluation and termination, examined. Additional topical areas include: grantmanship, teamwork, and affecting organizational change.

**493 Social Policy (4)**

Prereq: 490A or perm. Examination of social policy stressing policy development; relationships of policy, goals and organizational structure, and decision-making patterns and role assignments within social welfare organizations and agencies.

**498 Independent Studies and Special Projects in Social Work (1-10)**

Prereq: 12 hrs in social work and perm. Student responsible for design and implementation of course of study or special project in area related to social work. Student interested in course must submit proposal for approval by department chairman at least 30 days prior to enrollment in course. Course may be repeated until 10 hrs of credit earned.

## SOCIOLOGY

The major requirement for the A.B. degree in sociology is a minimum of 45 quarter hours of courses in sociology, of which at least 16 hours must be at the 400 level, and including: introductory sociology (101 or 302), one course in methods (350 or 351), and one course in theory (403 or 404). (Courses in anthropology count toward the Arts and Sciences social science requirement.)

In addition to the major in sociology, the department offers a minor. The requirement for the minor is a minimum of 28 hours of coursework in sociology, of which at least 12 hours must be at the 400 level and include one course in methods (350 or 351) and one course in theory (403 or 404).

The Sociology Department also offers a special program of study in the area of criminology. See the section entitled Special Curricula, in this catalog, under the College of Arts and Sciences for information concerning the program.

**101 Introduction to Sociology (5) (2S)**

Nature of human society and factors affecting its development. Fundamental concepts of sociology: culture, personality, groups, institutions.

**201 Contemporary Social Problems (4) (2S)**

Prereq: 101 or jr or sr rank. Selected sociological perspectives on social problems considered. Specific social problems analyzed may include problems related to crime, sexual inequality, marriage and family, minority groups, student protest, drug and alcohol abuse, mental illness, environment, and others.

**210 Introduction to Social Psychology (4) (2S)**

Prereq: 101 or 302. Patterning of conduct through social interaction; functional analysis of individual-group relationships in various organizational contexts; current theory and research in field.

**211 Crowd and Mass Behavior (4) (2S)**

Prereq: 101 or 302. Collective behavior resulting from social unrest; social contagion; formation and behavior of crowds; cults and sects; panic and disaster behavior; various types of mass behavior; impact upon social institutions.

**220 Introduction to the Family (4) (2S)**

Prereq: 101 or 302. Primary emphasis on American family and how it has been changing. Among specific topics explored are interaction within family, family in relation to other institutions, mate-selection, marriage and its alternatives, family disorganization, and future of American family.

**223 American Society (4) (2S)**

Prereq: 101 or jr or sr rank. Sociological analysis of major contemporary social issues. Specific issues analyzed may include industrialization, urbanization, bureaucracy, militarism, structure of power, racism, inequality, abortion, and others.

**230 Sociology of Poverty (4) (2S)**

Prereq: soph or above. Critical examination of theories of poverty, how poverty is defined and measured, theoretical implications of research on the poor, consequences of poverty, and strategies to fight poverty.

**231 Sociology of Health and Health Care (4) (2S)**

Prereq: 101 or 302. Examination of social definitions of health and disease, distributions of health and disease, and health care delivery. Particular attention devoted to medical education, various health care delivery systems, and contemporary social issues in medicine.

**233 Sociology of Sport (4)**

Prereq: 8 hrs. Analysis of social aspects of sport, with emphasis on interrelationship of sport and society. Focuses on topics such as social values, education, sport roles, religion, socialization, mass media, sexism, and racism; oriented to student with interest in sports.

**280 Sociology of Popular Music (4)**

Prereq: 101 or 302. Popular music is meaning, performance, group activity, and industry, and an expression of cultural forms, values, and concepts. Focuses on describing and analyzing these dynamics, with specific emphasis on messages, functions, and organizational behavior.

**302 Principles of Sociology (5) (2S)**

Prereq: jr or sr rank. Same as 101, covered in more intensive manner. Not open to students who have taken 101.

**305 Readings in Sociology (1-6, max 6)**

Prereq: 16 hrs and perm. Independent, directed readings designed to expand student's understanding in selected area of interest.

**309 Sociology of Appalachia (4) (2S)**

Prereq: 101 or perm. Intensive study of Appalachia from sociological perspective. Emphasis on population of Appalachia (number and distribution of inhabitants, characteristics of population, vital processes and migration), culture of rural poverty, acceptance of innovation and social change in Appalachia, major social institutions in area, and community power structure in Appalachia.

**315 The Individual in Mass Society (4) (2S)**

Prereq: jr or sr rank. Analysis of implication of cultural and social complexity for processes of individuation, identity formation, and identity maintenance. Consideration of simultaneous growth of secondary relations and dissolution of primary relations, and significance of these to social, psychological, and cultural organization as we approach automated society.

**327 Sociology of Education (4)**

Prereq: 8 hrs. School as social institution in relation to community and development of child; comparative systems of education; sociology of learning and teaching.

**329 Minority Group Relations (4)**

Prereq: 8 hrs. Racial, male-female, and ethnic problems in America; causes and consequences of prejudice and discrimination.

**331 Class and Social Inequality (4)**

Prereq: 8 hrs. Causes and consequences of class and social inequality in selected societies. Critical examination of ideologies that claim to justify inequality. Replaces 431.

**334 Sociology of Aging (4)**

Prereq: 101 or 302 and PSY 101; or 8 hrs of sociology; or perm. General introduction to social gerontology with emphasis on normal aspects of aging. Major emphasis on sociological dimensions of aging in context of such areas as socio-demographics of aging populations, values, roles, norms, self-concept, age stratification, aging patterns of minority groups, and application of current sociological theories of aging.

**335 Economic Sociology (4)**

Prereq: jr or sr rank; 8 hrs of sociology. Consideration of dynamics and social and cultural effects of various systems of power. Main focus is to analyze extent to which selected capitalist and socialist systems produce concentrated power, inequality, alienated work and life styles, and imperialism; also to analyze strategies for change in U.S.

**340 Population Analysis (4)**

Prereq: 8 hrs. Social and cultural determinations and conse-

quences of changes in fertility, mortality, and migration. Current and historical national and international population policies and programs.

### **350 Social Statistics (4)**

Prereq: 101 or 302. Principles and procedures in treatment and presentation of quantitative social data. Methods of measuring central tendency, dispersion, and association. Scientific sampling, estimation, and tests of significance.

### **351 Elementary Research Techniques (4)**

Prereq: 8 hrs. Research techniques in sociology. Research design: collection, recording, and analysis of data.

### **352 Field Studies in Sociology (1-10)**

Prereq: 351 and perm. Planning, execution, and write-up of empirical study, utilizing skills developed in 351. Limited class meetings, conferences with instructor, research report.

### **361 Deviant Behavior (4)**

Prereq: 8 hrs. Theory and research concerning major types of deviant behavior and societal reaction to such things as criminality, suicide, drug addiction, and mental disorders. Causes and consequences of deviant behavior.

### **362 Criminology (4)**

Prereq: 8 hrs. Theories and research in criminal behavior and societal reaction to criminality. Causes and consequences of crime.

### **363 Juvenile Delinquency (4)**

Prereq: 8 hrs. Theories and research in delinquency. Causes and consequences of delinquent behavior among juveniles.

### **366 Penology (4)**

Prereq: 101; 361 or 362 or 363. Examination of history, operation, and problems of punishment. Patterns of prison organization, inmate group structure, personnel organization, and racism examined. Purpose and effectiveness of penal institutions described. Prisons, juvenile institutions, parole, halfway houses, and alternatives to punishment studied.

### **365 Madness in Society (4)**

Prereq: 8 hrs of sociology or perm. Study of social and cultural foundations of mental illness. Review of various definitions of madness, including historic and contemporary views. Emphasis on social control of aberrant behavior, including commitment process and legal, moral, and social implications of commitment. Examination of legal process regarding criminal insanity.

### **370 Sex Roles and Inequality (4)**

Prereq: 8 hrs of sociology or perm. Examination of social and historical factors that have kept women subordinate to men in family and prevented them from achieving equality in labor force. Also explores prospects for change.

### **403 Development of Sociological Thought (4)**

Prereq: 8 hrs. Major sociological concerns and concepts in relation to their social-historical setting. Special emphasis upon sociological thought in 18th and 19th centuries.

### **404 Modern Sociological Theory (4)**

Prereq: 12 hrs. Critical examination of major sociological conceptual frameworks in 20th century.

### **406 Proseminar in Sociology (4)**

Prereq: 20 hrs. Critical examination of selected theoretical and research problems. Primarily for advanced students in sociology.

### **408 Latin American Society (4)**

Prereq: 8 hrs or prev course on Latin America or perm. Intensive study of Latin American society from sociological perspective. Emphasis on contemporary Latin American values, population problems, man-land relations, levels and standard of living, social institutions, urbanization, and social change.

### **412 Public Opinion Processes (4)**

Prereq: 210 or 211. Attitudes and opinions in relation to formation of public opinion, political socialization and participation, social status, reference groups, decisionmaking, role of mass media.

### **413 Mass Communication (4)**

Prereq: 210 or 211. Personal and social functions of content in newspapers, radio, television, and film. Types of audiences and communication effects. Organization and control of mass media and problems in evaluation.

### **414 Contemporary Social Movements (4)**

Prereq: 8 hrs. Organized movements resulting in major social changes: revolutionary, nationalistic, reform, religious; agitation, leadership, ideology; case studies of typical movements.

### **416 Society and the Individual (4)**

Prereq: 8 hrs sociology and psychology or perm. Exploration of compatibilities and/or contradictions in psychological systems, culture, and social structure.

### **419 Small Group (4)**

Prereq: 210 or 12 hrs of psychology. Major theories and methods for study of small group theories and methods for study of small group as unit of social systems; communication patterns, role definition, leadership, cohesion, etc.; review of current literature.

### **421 Comparative Studies of Family (4)**

Prereq: 8 hrs. Intracultural and crosscultural differences and similarities in marriage patterns and family types, their social and cultural determinants and consequences, and their significance for family life.

### **422 The American Family System (4)**

Prereq: 8 hrs. Historical development of nuclear family in Europe and America. Special attention given to change of family patterns since colonial times and conditions leading to formation of American family, including problems and challenges this family system faces today.

### **424 Urban Sociology (4)**

Prereq: 8 hrs. Historical development and recent emergence of city as dominant feature of modern social life. Special emphasis upon demographic and ecological patterns and social organization of urban region.

### **425 Rural Sociology (4)**

Prereq: 8 hrs. Historical developments and current trends in populations and communities in rural areas of United States, with focus on implications for whole society of mechanization and industrialization of agriculture. Appropriate technology, back-to-the-land movement discussed.

### **426 Industrial Sociology (4)**

Prereq: 8 hrs. Interrelationship between industrial and social order. Special attention to social organization and processes within formal and informal structure of industrial unit.

### **428 Sociology of Religion (4)**

Prereq: 8 hrs. Interrelationship between religious institution and social structure from comparative perspective and with particular reference to American society.

### **430 Sociology of Organization (4)**

Prereq: 8 hrs. Organization and structure of social groups. Basic cultural patterns of economic, kinship, and other institutions. Integration and disintegration of social groups and institutions.

### **432 Political Sociology (4)**

Prereq: 8 hrs. Social and cultural basis of influence, power, and authority. Emphasis upon informal aspects of political process in groups and institutions other than government.

### **433 Sociology of Occupations and Professions (4)**

Prereq: 8 hrs. Professionalism as characteristic of modern economic and industrial complexes, popular conception and modern theory; social and technological preconditions; occupation profession continuum, components, barriers, and strategy; mock professionalism, motivation and satisfaction, controls; professionalism in particular professions.

### **453 Research Problems in Sociology (2-6)**

Prereq: 20 hrs including 351 and written perm prior to registration. Individual research in specific problem areas in which student has demonstrated ability and interest.

**464 Social Control (4)**

Prereq: 12 hrs. Nature of institutional control and sociocultural constraint as they affect human behavior. Theories and research.

**465 Social Change (4)**

Prereq: 12 hrs. Dynamics and processes by which social change takes place; major theories of change; industrialization and modernization; social evolution and revolution; planned change; social impact of change.

## SOUTHEAST ASIAN STUDIES

See International Studies.

## SPANISH

See Foreign Languages and Literatures.

## SWAHILI

See Foreign Languages and Literatures.

## THEATER

The following courses of instruction in theater provide the student with further clarification of the curricular requirements and models outlined in the School of Theater section of the College of Fine Arts chapter in *Colleges and Curricula*. It must be emphasized that all theater majors maintain close contact with their assigned advisors for guidance and clarification in programming. If an advisor has not been assigned, please contact the School of Theater office on the third floor of Kantner Hall. Further information concerning course listings may be received through the School of Theater office or the listed instructor.

### **101 Introduction and Orientation to the Theater as a Profession (1)**

(fall) Designed to acquaint theater premajors and other interested students with professional theater. Will examine varieties of theater institutions (educational, commercial, regional, etc.), role of administrator, producer, and director, and historical background for state of American theater.

### **102 Introduction and Orientation to the Theater as a Profession (2)**

(winter) Continuation of 101 with particular emphasis on training and job opportunities for actors, scene designers, costume designers, and lighting designers.

### **103 Introduction and Orientation to the Theater as a Profession (1)**

(spring) Continuation of 101 and 102 with particular emphasis on training and job opportunities for theater managers and arts administrators (stage managers, technical directors, house managers, business managers); training in other countries, history, purpose, and present function of theater unions; important theater journals and associations; and specialized training for related theater fields.

### **105 Practicum in Management (2-4)**

Prereq: interview, fr rank. Supervised lab practice in problems of theater publicity, finance, and house management. May be repeated.

### **110 Introduction to Performance (4) (2H)**

Introductory study of acting and actor. Emphasizes preparation of self and text, exploration of space, development of physical and vocal freedom through improvisation and theater games.

### **130 Technical Production: Scenery (3) (2H)**

(fall) Principles of technical production. 2 lec, 1 lab.

### **131 Technical Production: Lighting (3) (2H)**

(winter) Principles of technical production. 2 lec, 1 lab.

### **132 Technical Production: Costume (3) (2H)**

(spring) Principles of technical production. 2 lec, 1 lab.

### **135 Practicum in Production Design (2-4)**

Prereq: interview, fr rank. Supervised lab practice in design and execution of scenery, lighting, costumes, properties, and sound. May be repeated.

### **170 The Theater Experience (4) (2H)**

Exploration of nature and function of theater as art form through exploration of performer/space/audience interrelationship. Attendance at selected rehearsals and performances of Ohio University Theater productions augment lecture and discussion sessions. Attendance at selected professional theatrical performances may be included.

### **171 Introduction to Play Analysis: A Basis For Production (3) (2H)**

Prereq: 170. (winter, spring) Introduction to text analysis based on premise that understanding of play's text is important step toward understanding both performance of that play and means by which that performance is created. Attendance at Ohio University Theater productions is important augmentation to class lectures and group discussions.

### **205 Practicum in Management (2-4)**

Prereq: interview, soph rank. Supervised lab practice in problems of theater publicity, finance, and house management. May be repeated.

### **210 Acting I (4)**

Prereq: 110, soph or above and perm. (fall, winter) Principles and techniques of acting with major emphasis on developing trust and freedom. Warm-up techniques, theater games, improvisation, monologue exercises, and preliminary scoring techniques underline this introduction to work of actor.

### **211 Acting II (4)**

Prereq: 210 and perm. (winter, spring) Continuation of training started in 210, with addition of more detailed character development, scoring techniques, and ensemble considerations through duet scene work.

### **212 Acting III (4)**

Prereq: 211 and perm. (spring) For serious acting student this course completes sequential training program. Primary emphasis is to apply techniques learned in 210 and 211 to more lengthy and complicated scene structures. Long duet scenes and multi-character scene structures. Long duet scenes and multi-character scenes or short plays used for study and performance. Graduate directors and public performance frequently incorporated into final work in this course.

### **215 Practicum in Acting (2-4)**

Prereq: audition, interview, soph rank. Supervised lab practice in rehearsal and public performance of roles. May be repeated.

### **216A Body Training (2)**

Prereq: perm. (fall) Individual and group instruction in basic elements of body training for stage.

### **216B Body Training (2)**

Prereq: 216A and perm. (winter) Continuation of 216A; see 216A for description; must be taken in sequence.

### **216C Body Training (2)**

Prereq: 216B and perm. (spring) Continuation of 216A-216B; see 216A for description; must be taken in sequence.

### **217A Voice Training (2)**

Prereq: perm. (fall) Individual and group instruction in basic elements of vocal training for stage.

**217B Voice Training (2)**

Prereq: 217A and perm. (winter) Continuation of 217A; see 217A for description; must be taken in sequence.

**217C Voice Training (2)**

Prereq: 217B and perm. (spring) Continuation of 217A-217B; see 217A for description; must be taken in sequence.

**218A Voice/Speech Training for Broadcasters: Lesaac Approach (2)**

Prereq: nonmajors. (fall/winter) Group and individual instruction in basic elements of vocal training through Lesaac system.

**218B Voice/Speech Training for Broadcasters: Lesaac Approach (2)**

Prereq: nonmajors: 218A. (winter, spring) Continuation of 218A; see 218A for description; must be taken in sequence.

**218C Voice/Speech Training for Broadcasters: Lesaac Approach (2)**

Prereq: nonmajors: 218B. (spring) Continuation of 218A-218B; see 218A for description; must be taken in sequence.

**230 Stagecraft: Scenery (3)**

Prereq: 130. (fall) Procedures and practice in theatrical production; practical experience. 2 lec, 4 lab.

**231 Stagecraft: Lighting (3)**

Prereq: 131. (winter) Procedures and practice in theatrical production; practical experience. 2 lec, 4 lab.

**232 Stagecraft: Costume (3)**

Prereq: 132 (spring) Procedures and practices in theatrical production; practical experience. 2 lec, 4 lab.

**235 Practicum in Production Design (2-4)**

Prereq: interview, soph rank. Supervised lab practice in design and execution of scenery, lighting, costumes, properties, and sound. May be repeated.

**237 Basic Makeup (1)**

Prereq: theater or perm. Theory and practice of stage makeup. 1 lec, 1 lab.

**240 Introduction to Child Drama (2)**

(fall) Informal theater by children and formal theater for children; their roles in artistic and educational development of children. 2 lec, 1 lab.

**270 Theater History I (3) (2H)**

(fall) Development of theater and drama in prehistoric, Greek, and Roman periods

**271 Theater History II (3) (2H)**

(winter) Development of theater and drama in Medieval and Renaissance periods

**272 Theater History III (3) (2H)**

(spring) Development of theater and drama from Renaissance to modern

**301 Play Production (4)**

Fundamentals of theatrical production. Lab experience. 3 lec, 2 lab.

**305 Practicum in Management (2-4)**

Prereq: interview, jr rank. Supervised lab practice in problems of theater publicity, finance, and house management. May be repeated.

**310 Scene Study I (2-4)**

Prereq: 212 and perm. (fall) Intensive, performance oriented experience for advanced undergraduate actor. Concentrates on scripted material directed by 2nd yr graduate students, and designed to focus on actor's individual training needs.

**311 Scene Study II (2-4)**

Prereq: 212 and perm. (winter) Intensive study of and experience with nonscripted materials under supervision of master teacher and 2nd yr graduate directors. Experimental and improvisational theater are primary performance forms studied and experienced.

**312 Scene Study III (2-4)**

Prereq: 310 or 311 and perm. (spring) Extension of rehearsal/performance experience in 310 and 311. Advanced undergraduate rehearses and performs in scenes directed by 2nd-yr graduate directors, and selected to enhance dramatic range.

**315 Practicum in Acting (2-4)**

Prereq: audition, interview, jr rank. Supervised lab practice in rehearsal and public performance of roles. May be repeated.

**316A Stage Movement (2)**

Prereq: 216C; theater major. (fall) Principles and techniques of expressive movement.

**316B Stage Movement (2)**

Prereq: 316A. (winter) Principles and techniques of expressive movement.

**316C Stage Movement (2)**

Prereq: 316B. (spring) Principles and techniques of expressive movement.

**317A Voice for the Stage (2)**

Prereq: 217C; theater major. (fall) Principles and practice in vocal action for stage.

**317B Voice for the Stage (2)**

Prereq: 317A, theater major (winter) Principles and practice in vocal action for stage.

**317C Voice for the Stage (2)**

Prereq: 317B; theater major (spring) Principles and practice in vocal action for stage.

**320 Directing I (4)**

Prereq: 211. Principles and practices of directing for stage.

**333 Theatrical Rendering (3)**

Prereq: 230, 231, 232. (fall) Drafting, perspective, color, and rendering as applied to production design. 2 lec, 2 lab.

**334 Scene Design (4)**

Prereq: 333. (winter, spring) Principles and projects in scene design as part of production design. 2 lec, 2 lab.

**335 Practicum in Production Design (2-4)**

Prereq: interview, jr rank. Supervised lab practice in design and execution of scenery, lighting, costumes, properties, and sound. May be repeated.

**337 Advanced Makeup (3)**

Prereq: 237. (fall) Corrective, 3-dimensional, and nonrealistic makeup; rubber prosthesis; character analysis. 1 lec, 2 lab.

**338 Historical Bases of Design (4)**

Prereq: 230, 231, 232. (spring) Art history from prehistoric times and application to production design. 4 lec.

**340 Dramatic Literature for Children (3)**

Prereq: THAR 240 or theater major (winter) Examination of plays for child audiences and literature for dramatization by children. 3 lec.

**350 Playwriting (3) (2H)**

Prereq: perm. (fall) Theory and practice of dramatic writing.

**380 Musical Theater Projects (1-4)**

Prereq: perm. Participation in selected musical theater projects announced in advance of registration. Orientation may be either research or production.

**402 Theater Management (4)**

(fall) Procedures and practices in management of theater, including theater publicity, marketing, finance, ticket office, and house management.

**405 Practicum in Management (2-4)**

Prereq: interview. Supervised laboratory practice in problems of theater publicity, finance, and house management.

**409 Independent Studies in Administration (1-6)**

Prereq: perm. Allows advanced theater major to develop study project in aspects and problems of theater administration beyond normal course offerings.

**410 Advanced Acting (3)**

Prereq: 312 and perm. (winter) Exploration of specific problems in acting through use of exercises, monologues, and scenes.

**413 Acting Internship (1-12)**

Prereq: perm.

**415 Practicum in Acting (2-4)**

Prereq: audition/interview. May be repeated. Supervised laboratory practice in rehearsal and public performance of roles.

**416 Advanced Stage Movement (2)**

Prereq: 316C and perm. (winter) Connection and application of stage movement to role or roles in period plays; involves seeking out of tempos and rhythms of character and examining how they differ in various periods.

**417 Advanced Voice Training: Dialects and Scansion (2)**

Prereq: 317A, B, C or perm. (spring) Introduction to and experience in scanning essentials of versification as it particularly applies to reading of dramatic lines. Introduction to study of dialects through use of study tapes and other source materials.

**419 Independent Studies in Acting (1-6)**

Prereq: perm. Advanced theater major can develop study project in aspects and problems of acting beyond normal course offerings.

**420 Directing II (4)**

Prereq: 320. (winter, spring) Practical experience in directing for stage.

**421 Directing III (4)**

420 or equiv and perm. (winter, spring) Advanced directing project proposed by and awarded to sr undergraduates who have demonstrated specific directorial talent and interest. Projects supervised and juried by total directing staff.

**426 Stage Management (3)**

Prereq: sr rank and/or perm. (fall) Theoretical course in techniques and methods of professional stage management.

**427 Practicum in Stage Management (2-4)**

Prereq: 426 and perm. Supervised practical experience in stage managing of university theater or related production.

**429 Independent Studies in Directing (1-6)**

Prereq: perm. Advanced theater major can develop study project in aspects and problems of *directing* beyond normal course offerings.

**430 Advanced Stagecraft (4)**

Prereq: 230, 231, 232, 333. (fall) Advanced problems of scenery construction, handling, and rigging. 2 lec, 2 lab.

**431 Theory of Lighting (4)**

Prereq: 230, 231, 232, 333. (spring) Creative processes in design and execution of lighting for proscenium and nonproscenium forms. 3 lec, 2 lab.

**432 Costume Design (4)**

Prereq: 438. (winter) Application of principles of design to stage costuming, with emphasis on fabrics, figure drawing, and characterization. 2 lec, 2 lab.

**433 Scene Design II (4)**

Prereq: 334. (spring) Challenges student with series of design projects based on past periods of dramatic literature and art.

**435 Practicum in Production Design (2-4)**

Prereq: interview. Supervised laboratory practice in design and execution of scenery, lighting, costumes, properties, and sound.

**436 Properties and Special Effects (4)**

(spring) Problems of properties, sound, and special effects. 2 lec, 2 lab.

**438 History of Costume (4)**

Prereq: 230, 231, 232. (fall) Development of dress and influence of cultural factors from Egyptian and Asian civilizations, including fabrics, accessories, and ornamentation. 4 lec.

**439 Independent Studies in Production Design (1-6)**

Prereq: perm. Advanced theater major develops study project in aspects and problems of *production design* beyond normal course offerings.

**440 Children's Theater (3)**

Prereq: 340 or theater major. (spring) Philosophies and practical production procedures for child audiences. 2 lec, 2 lab.

**441 Creative Dramatics (3)**

Prereq: 340 or perm. (spring) Methods and techniques of guiding children through art of creation of informal drama with special emphasis on elementary age children.

**449 Independent Studies in Children's Theater (1-6)**

Prereq: perm. Advanced theater major develops study project in aspects and problems of *children's theater* beyond normal course offerings.

**450 Advanced Playwriting (3)**

Prereq: 350 or perm. (winter, spring) Special problems in writing long play.

**451 Playwrights Workshop (3, max 9)**

Prereq: perm. Practical workshop experience for playwrights, directors, and actors with new scripts. May be repeated.

**459 Independent Studies in Playwriting (1-6)**

Prereq: perm. Advanced theater major develops study project in aspects and problems of *playwriting* beyond normal course offerings.

**465 Practicum in Directing (1-4)**

Prereq: perm. Supervised laboratory practice in planning and executing dramatic production.

**470 Greek Theater and Drama (4) (2H)**

(fall, odd academic years) Drama, theater, and audience in ancient Greece. 3 lec.

**471 Roman and Medieval Theater (4) (2H)**

(winter, odd academic years) Intensive study of drama and theater of Roman and Medieval Europe. 3 lec.

**472 Renaissance Theater and Drama (4) (2H)**

(spring, odd academic years) Development of European theater and drama in Renaissance. 3 lec.

**473 18th Century Theater (4) (2H)**

(spring, odd academic years) Drama, theater, and audience in England from Restoration through 18th century. 3 lec.

**474 Baroque European Theater (4) (2H)**

(fall, even academic years) Detailed study of theater and drama of Europe in Baroque period. 3 lec.

**475 19th Century European Theater (4) (2H)**

(winter, even academic years) Major developments in drama and theater in Europe during 19th century. 3 lec.

**476 Contemporary Theater (4) (2H)**

(spring, even academic years) Trends and developments in 20th century theater. 3 lec.

**477A American Theater and Drama, 18th and 19th Centuries (3) (2H)**

Prereq: jr or sr. (fall) Beginnings and development of American theater and drama from 1700 to 1900.

**477B American Theater and Drama: 1900-1945 (3) (2H)**

Prereq: jr or sr. New theater movement and drama in United States up to WW II.

**477C American Theater and Drama: 1945-Present (3) (2H)**

Prereq: jr or sr. Theater and drama in United States from WW II to present.

**479 Independent Studies in Theater History and Criticism (1-6)**

Prereq: perm. Advanced theater major develops study project in aspects and problems of *theater history and criticism* beyond normal course offerings.



**480 Advanced Musical Theater Projects (2-4)**

Prereq: 3S0 or equiv. Supervised scene study drawing from wide range of musical theater literature — opera to musical comedy and cabaret work. Each project designed and selected to meet individual student's needs and interests.

**489 Independent Studies in Musical Theater (1-6)**

Prereq: perm. Advanced theater major can develop study project in aspects and problems of *musical theater* beyond normal course offerings.

## UNIVERSITY COLLEGE

**110 Effective Study Skills (2)**

Prereq: fr or perm. Review of basic study skills. Practice in effective reading techniques and differentiation of types of study. Vocabulary development, examination preparation, time management, and note taking also stressed.

**112 Speed Reading and Comprehension (2)**

Prereq: fr or perm. Emphasis on flexibility of reading patterns. Analyzes organizational patterns of printed materials; attempts to improve reading speed and comprehension levels while affecting students' attitudes toward reading.

**115 The University Experience (2)**

Prereq: fr rank. To help students adapt to demands of University as academic environment, assessing interests, values, and abilities; developing communication and coping skills; exploring academic majors and their requirements; establishing educational and career goals.

## UNIVERSITY PROFESSOR

Courses are offered each year by the six University Professors selected the preceding academic year. The courses cover topics chosen by the professors themselves, and may be offered only twice through the University Professor program. Often University Professor courses have joint freshmen and upperclass sections. As the courses are special offerings, no permanent listing of descriptions in this bulletin is possible. See your college office for descriptions and registration information, or come to University College, 140 Chubb Hall.

Generally, a University Professor course offered within the professor's area of training and expertise will count toward area requirements of different colleges, where applicable. Otherwise the credit fulfills elective credit hours. *Be sure to check with your college office regarding application of University Professor course credit to college requirements*

**150 University Professor**

(variable) Title and credit hours published in the *Schedule of Classes*. Fall quarter freshman-level UP course

**151 University Professor**

(variable) Title and credit hours published in the *Schedule of Classes*. Winter quarter freshman-level UP course

**152 University Professor**

(variable) Title and credit hours published in the *Schedule of Classes*. Spring quarter freshman-level UP course

**450 University Professor**

(variable) Title and credit hours published in the *Schedule of Classes*. Fall quarter upperclass-level UP course

**451 University Professor**

(variable) Title and credit hours published in the *Schedule of Classes*. Winter quarter upperclass-level UP course

**452 University Professor**

(variable) Title and credit hours published in the *Schedule of Classes*. Spring quarter upperclass-level UP course

## VISUAL COMMUNICATION

The curriculum in visual communication includes three introductory courses listed below plus a variety of photojournalism and picture editing courses listed in the journalism offerings and photo communication and photo illustration courses in the School of Art

The visual communication courses are designed to give students a basic understanding of the field.

**120 Introduction to Visual Communication (4)**

Survey course to familiarize students with broad scope of visual communication in today's world, history of visual communication, theory, visual signals and symbols, and professional opportunities in various visual media, advertising, public relations, book publishing, and other areas

**121 Delivery Systems (4)**

Focuses particular attention on techniques of gathering, editing, and production of visual material published in printed media.

**122 Techniques and Practices (4)**

(spring) Concentrates primarily on production of broadcast and projection visual material, including network and local TV news and advertising, cable TV, motion pictures, and multi-media.

## WOMEN'S STUDIES

**100 Introduction to Women's Studies (4)**

Interdisciplinary study of women and their worlds, including approach, resources, and research findings of several disciplines.

## ZOOLOGY AND MICROBIOLOGY

### Zoology Major (major code #2121)

The major requirements for the A.B. and B.S. in zoology degrees are a minimum of 40 and 50 quarter hours respectively in approved departmental courses. Departmental course requirements include ZOO 150, 151, 325, 303 or 430; 448 and 449 or 460 and 461; 375 or 477 or 479. Extradepartmental courses required for both the A.B. and B.S. degrees are: BOT 111; CHEM 141, 142, 143, 301, and 302; PSY 121; MATH 163A and B or 263A and B; and PHYS 201, 202, and 203

### Microbiology Major (major code #0411)

The major requirements for the B.S. in microbiology are as follows: MICR 411, 412, 413, 414, 415, 419, 463, and at least one of the following: MICR 211, 418, 433, 441, BOT 310, or 420. Extradepartmental courses required include: ZOO 150 and 325, BOT 111, MATH 163A or 263A, CHEM 141, 142, 143, 301, 302, 303, 304, and 325, PHYS 201 and 202. Though not required for the major, students preparing for advanced training should include the following: PSY 121, CHEM 351, PHYS 203, and CS 201

Other programs are outlined in the College of Arts and Sciences section of the catalog for students preparing for dentistry, environmental biology, medical technology, medicine, optometry, physical therapy, and veterinary medicine, any one of which may also lead to a baccalaureate degree with a major in zoology. The outlined curricula should be consulted regarding the specific requirements for each; they do contain different sets of requirements from those given in the above paragraph. Students who wish to teach and also receive the A.B. or B.S. degree with a major in zoology or microbiology must satisfy requirements for both teaching certification and the major

No grade which proves to be honestly and correctly issued by a departmental faculty member will be changed.

## Zoology

### 101 Principles of Biology (5) (2N)

Designed for nonscience majors. Principles of cell biology, physiology, ecology, genetics, and evolution. (Same as BOT 101.) Credit not allowed for both 101 and 150. 3 lec, 2 lab.

### 103 Human Biology (5) (2A)

(fall, winter, spring) *W. Witters, P. Jones*. Effect of man on ecosystem, including pollution and population relationships. Emphasis on drugs, their abuse, their pharmacology, and recent research findings on effects of drugs on humans. Reproductive physiology, contraceptive technology and research, biological aspects of abortion, and venereal disease. 5 lec.

### 150 Introduction to Zoology (6) (2N)

Prereq: CHEM 141 (or concurrent) recommended. (fall, winter) Designed for science majors, preprofessional (biological), and science modular students. Principles of cell biology, physiology, development, and genetics. Credit not allowed for both 101 and 150. 4 lec, 4 lab.

### 151 Introduction to Zoology (6) (2N)

Prereq: 150 or BOT 110 or perm. (winter, spring) Continuation of 150. Designed for science majors, preprofessional, and science modular students. Principles of evolution, ecology, and behavior; and a laboratory survey of major phyla. 4 lec, 4 lab.

### 271 Field Ornithology (2)

(spring) *H. Seibert*. Techniques and identification of birds in the field in southeastern Ohio. 4 lab.

### 300 Elements of Human Anatomy and Histology (6)

Prereq: 151; not open to fr; may be taken concurrently with 345. (spring) *R. Hikida, S. Simpson*. Basic tissues and organ systems of human body. Cat used for dissection. For medical technology, prenursing, premortuary, and prepharmacy students. 4 lec, 4 lab.

### 301 Human Anatomy (6)

Prereq: 101, not open to fr. (fall, winter) *F. Hagerman*. Structure of body systems with particular emphasis on human skeletal and neuro-muscular systems. Cat used for dissection. For physical education and prephysical therapy students only. 3 lec, 6 lab. (Same as HPER 301.)

### 303 Comparative Vertebrate Anatomy (6)

Prereq: 151, not open to fr. (winter, spring) *B. Allen*. Comparative study of body systems of vertebrates, with lab work covering various type forms. 3 lec, 6 lab.

### 305 Histological Technique (3)

Prereq: 151, jr or sr rank. (fall, spring) *J. Gault, W. Peterson*. Principles and methods of preparing animal tissues for microscopic study. 1 lec, 4 lab.

### 325 General Genetics (5)

Prereq: 151 or BOT 110. (fall, spring) *J. McQuate*. Principles and concepts of genetics as revealed by classical and modern investigation. 5 lec.

### 326 Laboratory Genetics (4)

Prereq: 325. (winter) *J. McQuate, J. Jollick*. Experiments with *Drosophila*, bacteria, and bacterial viruses designed to illustrate principles of genetics. Preparation of slides and karyotyping of chromosomes of man. 6 lab.

### 345 Human Physiology (4)

Prereq: 301 or 300 or concurrently with 345; not open to fr. (spring) *F. Hagerman*. Functions of various systems as applied to human. Special reference to physiological adaptations to environment and regulatory functions. For education, medical technology, physical education, and prephysical therapy students only. (Same as HPER 345.) 4 lec.

### 346 Human Physiology Laboratory (3)

Prereq: anatomy, 345 or with 345. (spring) *F. Hagerman*.

Laboratory experiences designed to complement material covered in 345. For prephysical therapy students; others by perm only. 6 lab.

### 352 Kinesiology (4)

Prereq: 301. Analysis of human motion based on anatomical and mechanical principles. 4 lec. (Same as HPER 252.)

### 364 Forensic Biology (3)

Prereq: for forensic chemistry students only. (spring) *J. Gault, O. Heck*. Provides experience in microscopic techniques; identification of hair and fibers, identification and grouping of blood including chemical, immunological, and electrophoretic methods and identification of semen. 2 lec, 6 lab.

### 373 Human Behavior (5) (2N)

Prereq: not open to fr. (fall) *J. Rovner*. Introduction to human ethology and sociobiology. Zoological views on parent-young interactions, nonverbal communication, bonding, sexuality, dominance, aggression, and other aspects of our behavior. Data from primate, child, and cross-cultural studies. Films illustrate certain topics.

### 375 Animal Ecology (3)

Prereq: 151; not open to fr. (winter) *H. Seibert*. Relation of animals to their habitat, to each other, and to man. General principles of terrestrial and aquatic communities, ecosystems, and man's involvement. 3 lec.

### 376 Ecology Laboratory (2)

Prereq: 375; not open to fr. (spring) *Staff*. Field course for animal ecology, consisting of visits to and studies of various local terrestrial and aquatic communities. 4 lab.

### 382 Topics in Zoology (1-3)

Prereq: 150 or BOT 110, perm of specific instructor. Individual or small-group study, under supervision of instructor, of topics not otherwise available to undergraduate students. Credit not applicable toward major in zoology or microbiology.

### 382A Clinical Laboratory Observation (1)

*J. Gault*. Gives student opportunity to observe activities characteristic of a clinical laboratory. Observations made in hospital setting so that, along with other background information provided, student may be better able to evaluate laboratory work as a career choice.

### 384 Bioethical Problems in Biology and Medicine (5)

Prereq: 9 hrs biological science. (winter) *W. Witters*. Ethical problems arising from rapid advances in biological and biomedical research. Topics include: human experimentation, fetal research, informed consent, death with dignity, euthanasia, biological engineering, reproductive advances, sex control, test tube babies, surrogate mothers, behavioral modification with drugs, electronics and surgery, health care delivery, mental health, and genetic screening. 5 lec.

### 390 Biology and the Future of Man (5)

Prereq: perm. (spring) *W. Witters*. Course covers following areas: human sexuality, physiological effects of environmental pollutants, drugs of abuse and introduction to advances in biological technology that influence future of man. Those having had 103 must do special projects due to some repetition. 4 lec, 1 arr.

### 391 Biology of Human Sexuality (4)

Prereq: 2 biology courses. Investigation of biological aspects of human sexuality. Emphasis on biological mechanisms concerning: fertilization, sex of child, development and growth, human sexual responses, sexual variation and deviation, sexual dysfunction and therapies, drug influence on sexuality, modern reproductive technologies, and contraceptive research.

### 404 Comparative Vertebrate Anatomy – Mammalian (6)

Prereq: 303. (fall) *B. Allen*. Continuation of 303. Anatomy of mammals with particular emphasis on the cat. 3 lec, 6 lab.

### 406 Vertebrate Embryology (6)

Prereq: 300 or 303. (winter, spring) *W. Peterson*. Development from gametogenesis to organogenesis in representative verte-

brate types with laboratory emphasis given to chick and pig. 4 lec. 4 lab.

#### 408 Histology (6)

Prereq: 303. (winter) *O. Heck*. Cells, tissues, and organ systems with regard to their morphological and physiological properties. 4 lec. 4 lab.

#### 427 Molecular Genetics (3)

Prereq: 325 or BOT 431. organic chemistry; perm. (winter; alternate yrs) *J. McQuate*. Gene action and fine structure; biochemistry of heredity: cytoplasmic inheritance. 3 lec.

#### 428 Human Genetics (4)

Prereq: 325. (winter; alternate yrs) *J. McQuate*. Genetics of man including normal and abnormal chromosomology; human biochemical genetics: genes in individuals, kindreds, populations, and evolution. 4 lec.

#### 429 Marine Biology (4)

Prereq: 151 and perm. (spring; alternate yrs) *W. Hummon*. Biological processes in marine and estuarine habitats, and adaptations for life in sea. emphasis on environmental variables affecting distribution, abundance, and dynamics of marine organisms. Includes 12 dy field trip to tropical marine environment during spring break; estimated cost \$150 per student; limited to 12 students with preference given to those having taken 430 or currently enrolled in 430. 3 lec. field trip

#### 430 Invertebrate Zoology (6)

Prereq: 20 hrs in major courses, perm. (spring; alternate yrs) *W. Hummon*. Structure, function, systematic, and ecological relationships among full range of phyla. 3 lec. 6 lab. 5-dy field trip to temperate marine environment

#### 431 Limnology (4)

Prereq: 475, 476 or BOT 425 and CHEM 143. perm. (spring; alternate yrs) *W. Hummon*. Physical, chemical, and biological processes in freshwater habitats: distribution, abundance, and dynamics of populations; structure, organization, and productivity of communities. 4 lec

#### 432 Field Hydrobiology (3)

Prereq: 431 or with 431 or perm. (spring; alternate yrs) *W. Hummon*. Methods and analysis of field collection data from standing and running water ecosystems, with emphasis on community structure and function under natural and polluted water conditions. special reference to acid mine pollution. 6 lab.

#### 433 General Protozoology (3)

Prereq: 15 hrs in biological sciences. (fall; alternate yrs) *W. Peterson*. Structure, life histories, physiology, and relationships of representatives from all major groups of protozoa. 3 lec. 5 lab.

#### 435 General Entomology (6)

Prereq: 151 (fall) *W. Romoser*. Overview of morphology, physiology, systematics, and general biology of insects. 3 lec. 6 lab

#### 437 Medical Entomology (4)

Prereq: 151 (winter) *W. Romoser*. Relationship of insects and related arthropods to human disease. 3 lec. 2 lab

#### 438 Topics in Insect Physiology (3)

Prereq: perm. (upon demand) *W. Romoser*. Seminar approach to current topics in insect physiology. 3 lec.

#### 439 Field Entomology (5)

Prereq: 151 435 or perm. (spring) *W. Romoser*. Systematics, evolution, ecology, and behavior of insects with emphasis on field collection and identification. 2 lec. 6 lab

#### 441 Parasitology (6)

Prereq: 151 (spring) *O. Heck*. Etiology of human parasites, their transmission, diagnosis, and prevention. 3 lec. 6 lab

#### 442 Helminthology (6)

Prereq: 151 (fall; alternate yrs) *O. Heck*. Biology of parasitic worms with emphasis on physiology, classification, life histories, and host response. 3 lec. 6 lab

#### 445 Physiology of Exercise (4)

Prereq: 345 (fall) *F. Hagerman*. Fundamental concepts

describing reaction of organ systems to exercise/muscle metabolism and work evaluation; special reference to physical fitness, sport conditioning, and environmental adaptations to exercise. 4 lec. (Same as HPER 414/514.)

#### 446 Physiology of Exercise Laboratory (2)

Prereq: 345. or perm.; required for those enrolled in 445/545. (fall) *F. Hagerman*. Laboratory experiences designed to complement 445/545. 4 lab. (Same as HPER 415/515.)

#### 448 Cell Physiology (4)

Prereq: organic chemistry or perm. (winter) *J. Wilson, J. Howell*. Analysis of fundamental cellular activities with emphasis on membrane structure and function, bioelectric potentials, contractile mechanisms. Also includes mitochondrial and chloroplast structure and function, bioluminescence, chromatophore activity, cell growth and development, and evolution of eucaryotic and procaryotic cells. 4 lec.

#### 449 Cell Physiology Laboratory (4)

Prereq: 448 or 463 or with 448 or 463. (winter) Laboratory experiments designed to illustrate experimental bases of principles of cell chemistry and physiology. 6 lab.

#### 450 Principles of Endocrinology (4)

Prereq: 460 or 448 recommended. (fall) *P. Jones*. Endocrine control of mammalian homeostasis and metabolism. 4 lec.

#### 451 Endocrinology Laboratory (4)

Prereq: 450. (spring) *P. Jones*. Experimental techniques pertinent to study of endocrine glands including surgical ablation of one or more glands, using rats. 6 lab.

#### 452 Advanced Endocrinology (3-4)

Prereq: 450, perm. (winter) Discussion of current research in mammalian endocrinology. Emphasis on reproduction controls and mechanisms. 3 lec.

#### 460 Animal Physiology (4)

Prereq: 448 or perm. (spring) *J. Wilson*. Principles of animal physiology with emphasis on comparative, regulatory, and adaptive aspects of neuromuscular and neuroendocrine regulation, circulation, excretion and osmotic and temperature regulatory mechanisms. 4 lec.

#### 461 Animal Physiology Laboratory (4)

Prereq: 460 or with 460, perm. (spring) Laboratory exercises designed to illustrate experimental basis of principles covered in 460. 6 and arranged lab.

#### 463 Cell Chemistry (4)

Prereq: organic chemistry. (fall, spring) *J. Wilson, J. McQuate*. Chemistry of carbohydrates, lipids, proteins, and nucleic acids. Principles of enzyme activity and kinetics, metabolic pathways. 4 lec.

#### 464 Cell Chemistry Laboratory (3)

Prereq: with or following 463 or 448. (winter) *J. Gault, J. Wilson*. Basic procedures in qualitative and quantitative analysis of biological compounds. 3 lab

#### 466 Comparative Neurophysiology (4)

Prereq: 448, 460, or perm. (fall) *M. Charlton*. Cellular aspects of neurobiology. Lectures and student seminars. Students will read and discuss classical foundation papers and recent papers in rapidly changing areas of cellular neurobiology.

#### 467 Neurophysiology Laboratory (2)

Prereq: 466 or with 466 or perm. (fall) *M. Charlton*. Lab sessions using advanced techniques in cellular neurobiology to illustrate lecture topics in 466. Training in manufacture and use of bioelectrodes. Some reports required in form of journal article

#### 468 Ichthyology (4)

Prereq: 151 (spring) *J. Eastman*. Lecture course emphasizing selected aspects of biology of major families of freshwater and marine fishes. Topics include morphology, physiology, taxonomy, evolution, ecology, behavior, and zoogeography. 4 lec

#### 471 Ornithology (3)

Prereq: 151 (winter) *H. Seibert*. Bird biology, including dis

cussions on behavior, adaptations, life histories, and role of ornithology in current ecological theory.

#### 472 Herpetology (5)

Prereq: 20 hrs zoology. (spring) *H. Seibert*. Survey of biology of amphibians and reptiles, with lab on identification of local forms and field work on natural history of seasonally active species. 3 lec, 4 lab.

#### 473 Animal Behavior (5)

Prereq: 151 or perm. (winter) *J. Rouner*. Ecological, physiological, and developmental aspects of animal behavior, interpreted from perspective of evolutionary biology. 4 lec, 2 lab.

#### 474 Mammalogy (6)

Prereq: 151. (fall) *G. Svendsen*. Mammals; their origin, evolution and adaptations, geographical distribution, ecology, and systematics. Emphasis on local fauna. 4 lec, 4 lab.

#### 477 Population Biology (4)

Prereq: 151 and PSY 121 or equiv. (fall) *W. Hummon*. Quantitative aspects of sampling and ecology of both plant and animal populations, with emphasis on conceptual framework and its application to natural populations. 3 lec, 2 prob sessions.

#### 478 Population Biology Laboratory (3)

Prereq: 477 or with 477, perm. (fall) *W. Hummon*. Field and laboratory exercises designed to illustrate and supplement concepts treated in 477. 6 lab.

#### 479 Evolution (4)

Prereq: 325. (winter) *G. Svendsen*. Current concepts of evolutionary processes; sources of variability, adaptation, speciation, coevolution, and phylogeny. 4 lec.

#### 480 Biological Research Methods (2-4)

Prereq: perm.

#### 480A Microscopy and Photomicrography (3)

Prereq: perm. (fall) *W. Peterson*. Principles, techniques, and applications of light microscopy including darkfield, phase-contrast, polarizing, fluorescence, and interference-contrast methods. Introduction to techniques of recording microscopic images.

#### 482 Topics in Zoology (1-6, max 8)

Prereq: 20 hrs of zoology including 151; 2.5 g.p.a. in major courses, perm. Individual or small-group study of specialized topics in zoology under supervision of instructor.

#### 485 Undergraduate Research (1-3, max 12)

Prereq: 20 hrs and 2.5 g.p.a. in zoology, perm from specific professor. Independent research under supervision of staff member.

#### H485 Undergraduate Research (1-4, max 12)

Prereq: 3.0 g.p.a. in sciences, perm from specific professor. Individualized and directed research. Students select topics or are directed into possible research areas.

#### H495 Undergraduate Research (Thesis) (3-9, max 15)

Prereq: H485, 3.0 g.p.a. in sciences, sr rank. Independent departmental honors research under supervision of staff member. Student should enroll qtr he or she expects to complete thesis.

## Microbiology

#### 211 Environmental Microbiology (3) (2A)

Prereq: one qtr biological science or chemistry or perm. (fall, spring) *J. Lawrence*. Natural microbial activities, their function in waste and pollution reclamation and disposal, water purification, food production and spoilage, and in public health. 3 lec.

#### 212 Environmental Microbiology Laboratory (2) (2A)

Prereq: 211 or with 211. (fall, spring) *J. Lawrence*. Characteristics and activities of microbes of special relevance to man's welfare and those affecting maintenance of environmental quality. 2 lab.

#### 411 General Microbiology (6)

Prereq: 10 hrs biological science; organic chemistry. (fall, winter) *S. Maier, R. Downey*. Properties of bacteria and other protists and their importance in our environment. Laboratory training in common bacteriological methods. 3 lec, 6 lab.

#### 412 Microbiological Techniques (5)

Prereq: 411, perm. (winter) *S. Maier*. Semi-independent course gives microbiology major extensive experience in use of bacteriological techniques and equipment; information retrieval. 2 lec, 8 lab.

#### 413 Pathogenic Bacteriology (6)

Prereq: 411. (winter) *J. Lawrence*. Microorganisms in relation to disease. Disease manifestations, diagnostic and control methods; some aspects of immunity. 3 lec, 6 lab.

#### 414A Animal Virology (3)

Prereq: 411 and perm. (winter) *R. Walker*. Study of viral and rickettsial agents pathogenic to man and animals. Isolation and identification methods, physico-chemical and biological properties. Pathology, cure, and prevention of selected prototype diseases. 3 lec.

#### 414B Animal Virology Laboratory (1)

Prereq: to be taken concurrently with 414A, perm. (winter) Limited to microbiology majors, others by perm if seats available. 2 lab and arr.

#### 415 Immunology (6)

Prereq: 411. (spring) *R. Walker*. Fundamental concepts of immunity, how produced, advantages and disadvantages; fundamental immunological phenomena. 3 lec, 6 and arr lab.

#### 416 Immunochemistry (6)

Prereq: 411, or 511 and perm. (fall) *R. Walker*. Structure of antigens and antibodies. Study of cells and organs participating in immune response. Immunopathology. Methods of isolation, purification, and chemical assay of antigens and antibodies. Immunization and study of immune responses in laboratory animals. 3 lec, 6 lab (arranged).

#### 417 Advanced General Microbiology (6)

Prereq: 411 or perm. (fall) *J. Lawrence*. Lectures, readings, and laboratory experiments on selected topics in applied microbiology: water preparation and testing, sewage and solid waste disposal, nutrient recycling, food microbiology, and microbial interactions with higher plants. 2 lec, 4 lab.

#### 418 Epidemiology (4)

Prereq: 411 or 437 or 441, and perm. (fall) *R. Walker*. Mode of spread, cure, and prevention of communicable diseases in humans. 3 lec, 2 lab.

#### 419 Bacterial Physiology (6)

Prereq: 411, 463 or equiv. (spring) *S. Maier*. Nutrition, function, and metabolism of bacteria; pertinent laboratory work illustrating fundamental principles and various experimental techniques. 3 lec, 5 lab.

#### 427 Molecular Genetics (3)

Prereq: 325 or BOT 431, organic chemistry; perm. (winter; alternate yrs) *J. McQuate*. Gene action and fine structure; biochemistry of heredity; cytoplasmic inheritance. 3 lec.

#### 433 General Protozoology (6)

Prereq: 15 hrs in biological sciences. (fall; alternate yrs) *W. Peterson*. Structure, life histories, physiology, and relationships of representatives from all major groups of protozoa. 3 lec, 5 lab.

#### 441 Parasitology (6)

Prereq: 151. (spring) *O. Heck*. Etiology of human parasites, their transmission, diagnosis, and prevention. 3 lec, 6 lab.

#### 463 Cell Chemistry (4)

Prereq: organic chemistry. (fall, spring) *J. Wilson, J. McQuate*. Chemistry of carbohydrates, lipids, proteins, and nucleic acids. Principles of enzyme activity and kinetics; metabolic pathways. 4 lec.

#### 482 Topics in Microbiology (1-6, max 8)

Prereq: 20 hrs of microbiology including 411; 2.5 g.p.a. in

major courses, perm. Individual or small-group study of specialized topics in microbiology under supervision of instructor.

**485 Undergraduate Research (1-3, max 12)**

Prereq 20 hrs and 2.5 g.p.a. in major courses, perm from specific professor. Independent research under supervision of staff member

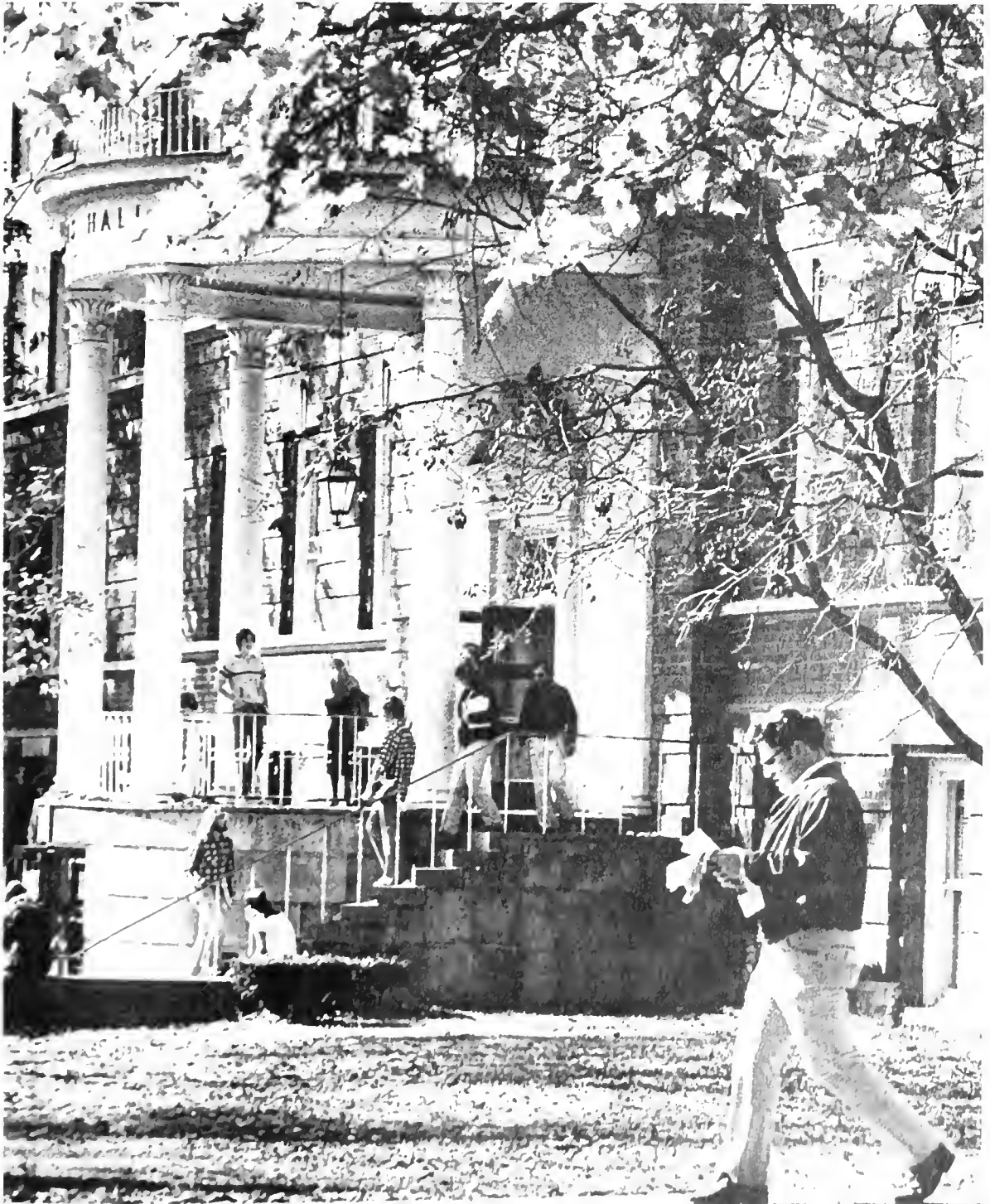
**H485 Undergraduate Research (1-4, max 12)**

Prereq 3.0 g.p.a. in sciences, perm. Individualized and directed

research. Students select topics or are directed into possible research areas

**H495 Undergraduate Research (Thesis) (3-9, max 15)**

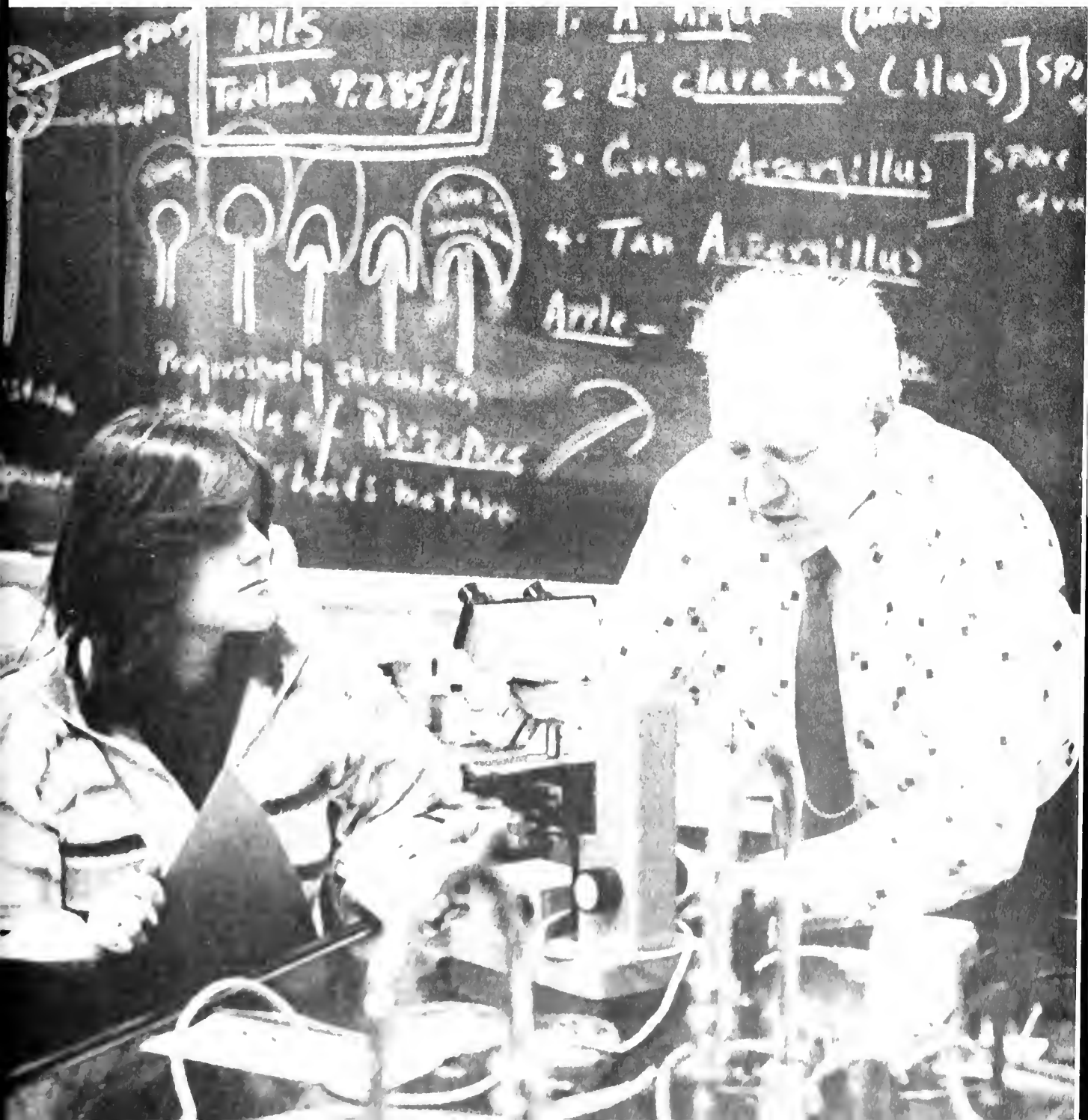
Prereq H485, 3.0 g.p.a. in sciences, sr rank. Independent departmental honors research under supervision of staff member. Student should enroll qtr he or she expects to complete thesis.







## Faculty and Administration





# Departmental Faculty

The following listings were submitted by the dean's office in each college in May, 1981, and verified in the Provost's Office. The regional campus faculties are listed after the main campus faculties.

## ART

**Prof:** John Baldwin, M.F.A., *Instituto Allende*; David Hostetler, M.F.A., *Ohio U.*; William Kortlander, Ph.D., *U. of Iowa*; Ronald Kroutel, M.F.A., *U. of Michigan*; Henry Lin, M.F.A., *U. of Washington*; Dana Loomis, M.F.A., *Cornell U.*; Clifford McCarthy, M.S., *U. of Wis. Madison*; Donald Roberts, M.F.A., *Ohio U.*

**Assoc. Prof:** Robert Borchard, M.S., *U. of Wis.*; Terrill Eiler, M.F.A., *Ohio U.*; Aethelred Eldridge, M.S.D., *U. of Michigan*; Erik Forrest, A.T.D., *U. of Edinburgh*; Arnold Gassan, M.A., *U. of New Mexico*; Abner Jonas (director), M.F.A., *U. of Iowa*; David R. Klahn, M.F.A., Edward Mayer, M.F.A., *U. of Wis.*; Karen Nulf, M.A., *Michigan State U.*; Gary Pettigrew, M.F.A., *Ohio U.*; Gary Schwindler, Ph.D., *U. of Calif. Los Angeles*; Daniel Williams, M.A., *U. of Oregon*; James Winebrenner, M.F.A., *Cranbrook Acad. of Art.*

**Asst. Prof:** Richard Bigus, M.F.A., *Yale U.*; Marilyn Hunt (visiting), M.A., *Indiana U.*; Mary Manusos, M.F.A., *U. of Wis.*; Judith Perani, Ph.D., *Indiana U.*; Edward E. Pieratt, M.A., Joseph Zeller, M.F.A., *Alfred U.*

**Instr:** Robert Bartlett (part-time), B.F.A., *Center for Creative Studies, Detroit*; Joan Rosenberg, M.F.A., *Cranbrook Academy.*

## ADMINISTRATIVE SCIENCES

**O'Brien Prof. of Banking and Finance:** Kaye Rakes, D.B.A., *Washington U.*

**Prof:** Victor Grieco, Ed.D., *U. of Pittsburgh*; Azmi Mikhail, Ph.D., *Ohio State U.*; Harlan Patterson, Ph.D., *Michigan State U.*; Benjamin Prasad, Ph.D., *U. of Wisconsin at Madison*; David Richmond, Ph.D., *U. of Illinois*; Scott Walton, Ph.D., *Iowa State U.*

**Assoc. Prof:** Kahandas Nandola, Ph.D., *U. of Pennsylvania*; Manjulika Koshal, Ph.D.; Dwight Pugh, Ph.D., *Ohio U.*; Lawrence Zudak, Ph.D., *Purdue U.*

**Asst. Prof:** Timothy Hartman, Ph.D., *Ohio U.*; Daniel Lindley, Ph.D., *U. of North Carolina*; John S. Wagle (chairman), Ph.D., *U. of Nebraska-Lincoln.*

**Instr:** Rose Dikis, M.B.A.

## ACCOUNTING AND QUANTITATIVE METHODS

**O'Brien Prof. of Public Accounting:** Michel W. Glautier, B.A., *Manchester U.*

**Prof:** Warren Reininga (chairman), M.C.S., *Indiana U.*; CPA; William Voss, Ph.D., *U. of Chicago*; Charles H. D'Augustine, Ph.D., *Florida State U.*

**Assoc. Prof:** Thomas Bolland, Ph.D., *U. of Chicago*; James S. Cox, Ph.D., *U. of Pittsburgh*, CPA; Paul Dunlap, Ph.D., *American U.*; Abdul Hammood, Ph.D., *Case Western Reserve U.*; Clarence Stephenson, M.B.A., *George Washington U.*, CPA; Donald V. Stuchell, M.A.S., *U. of Illinois*, CPA.

**Asst. Prof:** Ted Compton, Ph.D., *U. of Cincinnati*; Carol Anne Hilton, M.A., *Boston U.*; Joseph N. Hilton, Ph.D., *U. of Arkansas*; Ellsworth Holden, M.A., *Harvard U.*; Anne H. McClanahan (part-time), Ph.D., *Ohio U.*

**Lect:** W. Charles Slaven (visiting), M.B.A., *Miami U.*, CPA.

**Instr:** Susan Sisak, M.B.A., *Ohio U.*

## AEROSPACE STUDIES

**Prof:** Robert E. Warner, Jr. (chairman), M.A., *Ohio State U.*

**Asst. Prof:** Eric E. Jungkind, M.S., *Troy State U.*; Ted D. Wright, Jr., M.S., *Southern Cal U.*

## AFRO-AMERICAN STUDIES

**Prof:** Francine Childs, Ed.D., *East Texas Univ.*

**Assoc. Prof:** Robert Rhodes, M.A., *U. of Cincinnati*; Pradip Ghosh, Ph.D., *SUNY, Buffalo*; Vattel T. Rose (director), Ph.D., *U. of Minnesota*; Thomas Porter, M.A.T., *Antioch College.*

**Asst. Prof:** Gladstone Yearwood, Ph.D., *Ohio U.*

**Instr:** E. Yvonne Moss, M.A., *Howard U.*

## AVIATION

**Prof:** Francis Fuller (chairman), B.S., *Ohio U.*

**Asst. Prof:** Joan Mace, B.S. *Ohio U.*; Lance Dale, M.A., *Ohio U.*

## BOTANY

**Dist. Prof:** Norman Cohn, Ph.D., *Yale U.*

**Prof:** Laurence Larson, Ph.D., *Purdue U.*; Robert Lloyd, Ph.D., *U. of California at Berkeley*; Charles Miller (chairman), Ph.D., *U. of North Carolina, Chapel Hill*; Irwin Ungar, Ph.D., *U. of Kansas*; Warren Wistendahl, Ph.D., *Rutgers State U.*

**Assoc. Prof:** James Braselton, Ph.D., *Iowa State U.*; James Cavender, Ph.D., *U. of Wisconsin*; James Graffius, Ph.D., *Michigan State U.*; John Mitchell, Ph.D., *Edinburgh U.*; Gar Rothwell, Ph.D., *U. of Alberta*; Richard Rypma, Ph.D., *Ohio State U.*; Ivan Smith, Ph.D., *U. of London.*

**Asst. Prof:** Philip Cantino, Ph.D., *Harvard U.*; Gene Mapes (adjunct), Ph.D., *U. of Iowa.*

## CHEMISTRY

**Dist. Prof:** Peter Griffiths, Ph.D., *Oxford U.*; William Huntsman, Ph.D., *Northwestern U.*

**Prof:** Jesse Day, Ph.D., *Case Inst. of Tech.*; David Hendrick, Ph.D., *Iowa State U.*; Clifford Houk, Ph.D., *Montana State U.*; Robert Ingham, Ph.D., *Iowa State U.*; Robert Kline, Ph.D., *U. of Wisconsin, Madison*; Howard Latz, Ph.D., *U. of Florida*; Paul Sullivan, Ph.D., *U. of Waterloo*; Robert Sympton (chairman), Ph.D., *U. of Illinois*; James Tong, Ph.D., *U. of Wisconsin, Madison*; Thomas Wagner, Ph.D., *Northwestern U.*

**Assoc. Prof:** John Blazyk, Ph.D., *Brown U.*; Peter Johnson, Ph.D., *U. of Birmingham*; Gary Pfeiffer, Ph.D., *Carnegie-Mellon U.*; Gene Westenbarger, Ph.D., *U. of California, Berkeley*; Robert Winkler, Ph.D., *U. of Michigan.*

**Asst. Prof:** Jared Butcher, Jr., Ph.D., *U. of Tennessee.*

## COMPARATIVE ARTS

**Prof:** James Conover, Ph.D., *Northwestern U.*; Robert Wortman (chairman), Ph.D., *Florida State U.*

**Assoc. Prof:** Michael Harper, Ph.D., *U. of NC Chapel Hill.*

**Asst. Prof:** Dorothy Murray, Ph.D., *Ohio U.*; Jessica Timmis, Ph.D., *Ohio U.*

## COMPUTER SCIENCE

**Prof:** Donald O. Norris, Ph.D., *Ohio State U.*; Yin-Min Wei, Ph.D., *U. of Iowa.*

**Assoc. Prof:** Klaus Eldridge (chairman), Ph.D., *U. of Colorado*; John Gillam, Ph.D., *Michigan State U.*; Larry E. Snyder, Ph.D., *Purdue U.*

**Asst. Prof:** Larry Irwin, M.S., *Ohio U.*; Wm. E. Kaufman, Ph.D., *U. of Houston*; V.K. Vaishnavi, Ph.D., *IIT Kanpur.*

## DANCE

**Prof:** Gladys Ballin, B.A., CUNY Hunter College; Marcia Sakamoto (visiting), M.A., Mills College; Shirley Wimmer (director), M.A., New York U.

**Assoc. Prof:** Patricia Welling, B.S., Wayne State U.

**Asst. Prof:** Madeleine Scott, M.A., U.C.L.A.; Margaret Tchong, M.F.A., U. of Utah.

**Instr:** Eileen Cohan, B.M., U. of Cincinnati.

**Lect:** Frederick Krapf; Betty Walberg, B.A., Bennington.

## ECONOMICS

**Dist. Prof:** Lowell Gallaway, Ph.D., Ohio State U.; Lee Soltow, Ph.D., U. of Wisconsin at Madison.

**Prof:** Douglas Adie, Ph.D., U. of Chicago; Edwin Charle, Ph.D., Indiana U.; Burton DeVea, Ph.D., U. of Minnesota; Ismail Ghazalah, Ph.D., U. of Calif.-Berkeley; David Klingaman, Ph.D., U. of Virginia; Rajindar Koshal, Ph.D., U. of Rochester; David Levinson, Ph.D., U. of Wisconsin at Madison; John Peterson, Ph.D., U. of Chicago; Fred Picard, Ph.D., Syracuse U.; Vishwa Shukla, Ph.D., U. of Wisconsin at Madison; Richard Vedder (chairman), Ph.D., U. of Illinois.

**Assoc. Prof:** Christopher Barnekov, Ph.D., U. of Chicago; Neil Bucklew, Ph.D., U. of Wisconsin at Madison; Paul Deuster, Ph.D., U. of Wisconsin at Madison; Dana Hewins, Ph.D., U. of Illinois.

**Asst. Prof:** Jan Palmer, Ph.D., Michigan State U.

**Instr:** David Kreutzer, M.A., Virginia Polytechnic Institute.

**Charles O'Brien Prof. Emeritus:** Meno Lovenstein, Ph.D., Johns Hopkins U. (part-time).

**Trustees Prof. Emeritus:** Harry Crewson, Ph.D., Ohio State U. (part-time).

## EDUCATION—APPLIED BEHAVIORAL SCIENCES AND EDUCATIONAL LEADERSHIP

**Prof:** Robert Barcikowski, Ph.D., SUNY State U. Buffalo; Gilford Crowell, Ed.D., U. of Missouri; Max Evans, Ph.D., Ohio State U.; Donald Knox, Ed.D., Case Western U.; Paul Roaden (director), Ed.D., U. of Tennessee; Albert Shuster, Ed.D., U. of Virginia; Joseph Sligo, Ph.D., U. of Iowa; Thomas Sweeney, Ph.D., Ohio State U.; Melvin Witmer, Ph.D., Florida State U.

**Assoc. Prof:** Fred Dressel, Ed.D., Indiana U.; James Grubb, Ph.D., Ohio U.; Luther Haseley, Ed.D., U. of Toledo; Sally Navin, Ph.D., Ohio State U.

**Asst. Prof:** Glenn Doston, Ph.D., Northwestern U.; James Hartman, Ph.D., Kent State U.

## EDUCATION—CENTER FOR ECONOMIC EDUCATION

**Prof:** Roman Warmke (director), Ph.D., U. of Minnesota.

## EDUCATION—CURRICULUM AND INSTRUCTION

**Morton Prof. of Math Education:** Leonard Pikaart, Ed.D., U. of Virginia

**Prof:** Jason Brunk, Jr., Ed.D., U. of Maryland; Monroe Johnson, Ed.D., U. of Tennessee; Hwa-Wei Lee, Ph.D., U. of Pittsburgh; Albert Leep, Ed.D., Ball State U.; Ragy Mitias, Ph.D., Ohio State U.; Milton Ploghoft, Ed.D., U. of Nebraska; Paul Ploutz, Ed.D., U. of Northern Colorado; Sadek Samaan, Ph.D., Columbia U.; James Thompson, Ph.D., Ohio State U.; Roman Warmke, Ph.D., U. of Minnesota

**Assoc. Prof:** Arthur Clubok, Ph.D., U. of Michigan; Larry Jageman, Ed.D., U. of Northern Colorado; Reba Pinney, Ph.D., Ohio U.; Sally Schaaf, Ph.D., Ohio U.; Charles Smith, Jr., Ed.D., Wayne State U.; Edward Stevens, Jr., Ed.D., U. of Rochester; Seldon Strother, Ph.D., Kent State U.; Barbara Van der Veer, Ed.D., U. of Illinois; Richard Walker, Ed.D., Northern Illinois

**Asst. Prof:** Amy Allen, M.A., Columbia U.; Patricia Hoessli, M.S.E., Arkansas State U.; Norma Nutter, Ed.D., U. of Kentucky; Sondra Rebotini, Ed.D., West Virginia U.; Stephen Safran, Ph.D., U. of Virginia

**Instr:** Barbara Reeves, M.S.Ed., U. of Arizona; Sallie Roberts, M.A., Ohio U.

## EDUCATION—EDUCATIONAL MEDIA CENTER

Seldon Strother (director), Ph.D., Kent State U.; Denis Brodeur (coordinator), Ph.D., Indiana U.; Dawn O'Neal (cataloger), M.Ed., Ohio U.; Sandi Vitek (media technician), M.A., Michigan State U.

## EDUCATION—PROFESSIONAL LABORATORY EXPERIENCES

**Prof:** John Evans (director), Ph.D., Ohio State U.

**Assoc. Prof:** Margaret Hoy, M.Ed., Ohio U.

**Asst. Prof:** Albert Ginther, M.A., Ball State U.

**Instr:** William Bartels, M.Ed., Ohio U.; Howard Delamatre, M.Ed., Bowling Green; Joan Fucci, M.S., U. of Pittsburgh (part-time); Herman Humphrey, A.M., Columbia U. (part-time); Jane Meyers, M.Ed., Ohio U.

## ENGINEERING, CHEMICAL

**Prof:** William Baasel, Ph.D., Cornell U.; Calvin Baloun, Ph.D., U. of Cincinnati; John Collier, Ph.D., Case Institute of Technology; Nicholas Dinos (chairman), Ph.D., Lehigh U.; Harold Kendall, Ph.D., Case Institute of Technology; Richard Mayer, Ph.D., U. of Michigan; Robert Savage, Ph.D., Case Institute of Technology; Carleton Sperati (adjunct), Ph.D., U. of Illinois.

**Asst. Prof:** Wen Jia Russell Chen, Ph.D., Syracuse U.

**Post-doct. Research Assoc:** N. Patke, Ph.D., U. of Louisville.

## ENGINEERING, CIVIL

**Prof:** Harry Kaneshige, Ph.D., U. of Wisconsin-Madison; Reuben Olson (chairman), Ph.D., U. of Minnesota.

**Assoc. Prof:** Glenn Hazen, Ph.D., Penn State U.; Koladi Kripnanarayanan, Ph.D., U. of Iowa; Edward Russ, M.S.C.E., Clarkson College of Technology

**Asst. Prof:** Shad Sargand, Ph.D., Virginia Polytechnic Institute and State University

## ENGINEERING, ELECTRICAL

**Dist. Prof:** Wai-Kai Chen, Ph.D., University of Illinois.

**Prof:** Hollis Chen, Ph.D., Syracuse U.; Joseph Essman, Ph.D., Purdue U.; James Gilfert, Ph.D., Ohio State U.; Harry Hoffee, M.S.E.E., Ohio U.; Harold Klock, Ph.D., Northwestern U.; Richard McFarland, Ph.D., Ohio State U.; Satyanarayana Raju (chairman), Ph.D., Polytechnic Institute of Brooklyn, New York.

**Assoc. Prof:** Robert Curtis, Ph.D., New York U.; Raymond Luebbers, Ph.D., Ohio State U.; Furan Gonen, Ph.D., Iowa State U.

**Asst. Prof:** Albert Fakheri (adjunct), Polytechnic Inst. of Brooklyn, New York; Nasser Jaleeli, Ph.D., Imperial College, London; Brian Manhire, Ph.D., Ohio State U.

**Instr:** Ralph Burhans (part-time), A.B., Oberlin College; John Dickson (part-time), M.S.E.E., Youngstown State U.; Victor Hanna, M.S., Youngstown U.

**Post. Doct. Fellow:** Constantine Tamvachis, Ph.D., University of Cambridge

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**Asst. Prof:** Behrokh Khoshnevis, Ph.D., Oklahoma State U.

## ENGINEERING, MECHANICAL

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**Assoc. Prof:** William Beale, M.S., California Inst. of Technology

**Asst. Prof:** Ravi Chandran, Ph.D., Lehigh U.

## ENGLISH

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**Trustees Prof:** Taylor Culbert, Ph.D., U. of Michigan

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Helen MacKenzie, Ph.D., *U. of Edinburgh*; Dean McWilliams, Ph.D., *U. of Oregon*; Lester Marks, Ph.D., *Syracuse U.*; Vance Ramsey, Ph.D., *U. of Oklahoma*; Robert Roe, A.B., *Columbia U.*; James Schmidt, M.A., *U. of the Americas*; Duane Schneider, Ph.D., *U. of Colorado*; Harold Swardson, Ph.D., *U. of Minn.*; Calvin Thayer, Ph.D., *U. of Calif.-Berkeley*; James Thompson, Ph.D., *U. of Cincinnati*; Gerald Udell, Ph.D., *U. of Chicago*; Arvin Wells, Ph.D., *U. of Michigan*; Edgar Whan, Ph.D., *U. of Michigan*.

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**Asst. Prof:** Marilyn Atlas, Ph.D., *Michigan State U.*; Pam Durban, M.F.A., *U. of Iowa*; Mark Rollins, Ph.D., *U. of Mass.*; Arthur Woolley, Ph.D., *U. of Wis. Madison*.

**Lect:** June Berkley (visiting), M.A., *Ohio U.*

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**Asst. Prof:** Hubertus Bloemer, Ph.D., *Union Graduate School*; Ronald Isaac, Ph.D., *Southern Illinois U.*

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**Asst. Prof:** Ronald Kreisa, Ph.D., *Virginia Polytechnic Inst.*; Royal Mapes, Ph.D., *U. of Iowa*; Damian Nance, Ph.D., *U. of Cambridge, England*.

**Lect:** Gene Heien (assoc. chairman), M.A., *Indiana U.*

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**Asst. Prof:** John Bonaguro, Ph.D., *U. of Oregon*; Catherine Brown, M.S.Ed., *Ohio U.*; Ronald Dingle, M.S.P.E., *U. of Massachusetts*; David Jacoby, Ph.D., *Ohio U.*; Joyce King, M.S.Ed., *Ohio U.*; Paul Kitchen, Ph.D., *U. of Tennessee*; Sandra McMillan, Ph.D., *Ohio State U.*; Sue Ellen Miller, P.E.D., *Indiana U.*; Lynn Simon, P.E.D., *Indiana U.*; Ronald Whitaker, M.S.Ed., *Ohio U.*; Richard Woolison, M.S.Ed., *Ohio University*.

**Instr:** Theresa Angelo (part-time), M.A.Ed., *Western Michigan U.*; James Gilmore (part-time), M.S.Ed., *Ohio U.*; Joan Kappes (part-time), M.S.Ed., *Ohio U.*; Larry Scheiderer (part-time), M.A., *Central Michigan U.*; William Sells (part-time), M.S.Ed., *Ohio U.*; Charles Vosler (part-time), M.A.Ed., *Ball State U.*

## HEARING AND SPEECH SCIENCES

**Prof:** Donald Fucci, Ph.D., *Purdue U.*; Richard Ham, Ph.D., *Purdue U.*

**Assoc. Prof:** Zinny Bond, Ph.D., *Ohio State U.*; Dean Christopher, Ph.D., *Ohio State U.*; Joann Fokes, Ph.D.,

*Purdue U.*; Norman Garber, Ph.D., *U. of Missouri*; Ronald Isele, M.A., *Kent State U.*

**Asst. Prof:** Emily Buckberry, M.A., *Ohio U.*; Helen Conover, M.A., *Ohio U.*; Richard Dean, Ph.D., *Stanford U.*; William Seaton, (director), Ph.D., *U. of Illinois*

**Instr:** Joan Fucci, (part-time), M.A., *U. of Pittsburgh*; William Walence, M.A., *Kent State U.*

## HISTORY

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**Prof:** Charles Alexander, Ph.D., *U. of Texas*; Alan Booth, Ph.D., *Boston U.*; Robert Daniel, Ph.D., *U. of Wisconsin-Madison*; John Gaddis, Ph.D., *U. of Texas*; Alonzo Hamby (chairman), Ph.D., *U. of Missouri*; William Kaldis, Ph.D., *U. of Wisconsin-Madison*; George Lobdell, Ph.D., *U. of Illinois*; Suzanne Miers, Ph.D., *U. of London*; Compton Reeves, Ph.D., *Emory U.*; Bruce Steiner, Ph.D., *U. of Virginia*.

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**Asst. Prof:** William Frederick, Ph.D., *U. of Hawaii*; Susan Ramirez-Horton, Ph.D., *U. of Wisconsin-Madison*.

## HOME ECONOMICS

**Assoc. Prof:** Mary Doxsee, M.A., *Columbia Univ. T.C.*; Ellen Goldsberry, Ph.D., *Ohio State U.*; Julia Nehls, M.S., *Ohio U.*; Shirley Slater, Ph.D., *Ohio State U.*; Ernest Stricklin, Ph.D., *Boston U.*; Betty Jo Sullivan, Ph.D., *Ohio State U.*

**Asst. Prof:** Erma Langford, M.S., *U. of Tennessee*; Judy Matthews, M.S., *U. of Tennessee*; June Varner, M.S., *Ohio U.*

**Instr:** Lee Cibrowski, M.S., *Ohio U.*; Frances Frey, M.S., *Ohio U.*; Janet Izard, M.S., *U. of Illinois-Urbana*; Virginia Miller, M.S., *Ohio U.*; Carolyn Quattrochi, M.S., *Ohio U.*

## INDUSTRIAL TECHNOLOGY

**Prof:** William Creighton, Jr., M.Ed., *U. of Cincinnati*; Menno DiLiberto (chairman), Ed.D., *U. of Illinois*; Robert Hawlk, Ed.D., *Penn State U.*; Thomas Sarchet, M.S., *Bradley U.*; Howard Shull, Ed.D., *U. of Maryland*; Albert Squibb, D.Ed., *Penn State U.*

**Assoc. Prof:** Curtis M. Johnson, M.A. (part-time); Richard Nostrant, M.S.Ed., *SUNY College-Buffalo*; Arlen Saunders, M.A., *Morehead State U.*

**Asst. Prof:** John Adams, M.S., *Newark State College*; William Reeves, A.B.D., *U. of Kentucky*.

## INTERPERSONAL COMMUNICATION

**Prof:** Robert Goyer, Ph.D., *Ohio State U.*; Paul Nelson (dean), Ph.D., *U. of Minnesota*; Lynn Phelps (director), Ph.D., *U. of Southern California*; John Timmis, III, Ph.D., *Penn State U.*; Richard Whitman, Ph.D., *U. of Nebraska*.

**Assoc. Prof:** Charles Carlson, M.Ed., *Kent State U.*; Sue DeWine, Ph.D., *Indiana U.*; Ted Foster, Ph.D., *Ohio U.*; Judy Pearson, Ph.D., *Indiana U.*

**Asst. Prof:** Christine Bergen, Ph.D., *Bowling Green*; Maung Gyi, Ph.D., *Ohio U.*; Anita James, Ph.D., *U. of Southern California*; Ray Wagner, Ph.D., *Ohio U.*; Martin Remland, M.A., *Central Michigan U.*

**Instr:** David Descutner, M.A., *U. of Illinois*.

**Emeritus Prof:** Paul Boase, Ph.D., *U. of Wisconsin*.

## JOURNALISM

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**Asst. Prof:** Robert McMullen, B.A., *Nebraska State Teachers College*; Robert J. Richardson, M.S., *Ohio U.*

**Instr:** Herbert Amey (part-time), B.S.J.; Paul Bestgen (part-time), M.S.Ed., *Ohio U.*; Thomas Dunlap (part-time), M.S., *Ohio U.*; Karl Runser (part-time), B.A., *Ohio U.*; Marjorie Stright (part-time).

## LINGUISTICS

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**Asst. Prof:** Richard McGinn, Ph.D., *U. of Hawaii*; Adelaide H. Parsons, Ph.D., *Michigan State U.*

**Instr:** Beverly Flanigan, M.S., *Indiana U.*

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**Assoc. Prof:** William Day, D.B.A., *Harvard U.*; Lawrence Miller, Ph.D., *Ohio U.*; Harvey Tschirgi, Ph.D., *U. of California Los Angeles.*

**Asst. Prof:** Christina Christenson, Ph.D., *Georgia State U.*; Mary Keifer, J.D.; Jonathan Reiff, J.D., *Wake Forest U.*; Michael Roberson, Ph.D., *U. of Tenn.*; Alice Rutkoskie, M.S., *Indiana U.*

**Instr:** Richard Bullock, M.A.; Walter Stewart, Jr., M.A.

**Lect:** Frank Barone, Ph.D., *Ohio State U.*

## MATHEMATICS

**Prof:** Robert Atalla, Ph.D., *U. of Rochester*; Robert Blair, Ph.D., *U. of Iowa*; Robert Butner, Ph.D., *U. of Iowa*; Carl Denbow, Ph.D., *U. of Chicago*; Victor Goedicke, Ph.D., *U. of Michigan*; Robert Helsel, Ph.D., *Ohio State U.*; Surender Jain, Ph.D., *U. of Delhi*; Samuel Jasper, Ph.D., *U. of Kentucky*; Donald Norris (chairman), Ph.D., *Ohio State U.*; Paul Reichelderfer, Ph.D., *Ohio State U.*; Hari Shankar, M.A., *U. of Cincinnati*; Ray Spring, Ph.D., *U. of Illinois*; Shih-Liang Wen, Ph.D., *Purdue U.*; Howard Wickes, Ph.D., *U. of Iowa*; John Warrell, Jr., Ph.D., *U. of Texas.*

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**Asst. Prof:** Wm. E. Kaufman, Ph.D., *U. of Houston*; Man M. Sharma, Ph.D., *Ohio U.*; Robert Vancko, Ph.D., *Pennsylvania State U.*

## MILITARY SCIENCE

**Prof:** Richard J. Mottl, M.S.I.A., *George Washington University*

**Asst. Prof:** Robert L. Adams, M.B.A., *Ohio U.*; Stephen T. Smith, B.S., *Ohio State U.*; John J. Erb III, M.B.A., *Marquette U.*; Joseph R. Spafford, M.S., *Florida Institute of Technology*

## MODERN LANGUAGES

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**Asst. Prof:** Grafton Conliffe, Ph.D., *Northwestern U.*; Ruth Nybakken, Ph.D., *Columbia U.*; Maureen Weissmieder, Ph.D., *Penn State U.*

**Instr:** Joseph Burns, M.A., *U. of Tennessee*

**Lect:** Jacqueline Bolen, M.A., *Ohio U.*; Douglas Hinkle, M.A., *U. of Virginia*; Joseph Ipacs, M.A., *State U. of Szeged, Bartokmeo Martello, M.A., Michigan State U.*; Charles Richardson, M.A., *Ohio U.*; Henry Silver, M.A., *U. of California, Berkeley*

## MUSIC

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**Assoc. Prof:** Ernest Bastin, M.M., *U. of Illinois*; Gail Berenson, M.M., *Northwestern U.*; Lucile Jennings, M.A., *Ohio U.*; Guy Remonko, M.M., *West Virginia U.*; Harold Robison, D.M.A., *U. of Michigan*; James Scholten, Ed.D., *U. of Michigan*; Ronald Socciarelli, M.M., *U. of Michigan*; James Stewart, M.M., *Indiana U.*; Margene Stewart, M.A., *Ohio U.*; Eugene Wickstrom, S.M.M., *Union Theolo. Sem.*; Ira Zook, Jr., D.M.A., *U. of Michigan.*

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## OHIO PROGRAM OF INTENSIVE ENGLISH

**Assoc. Prof:** Robert Dakin, Ph.D., *U. of Michigan*

**Asst. Prof:** Adelaide Heyde Parsons (director), Ph.D., *U. of Michigan*

**Instr:** Beverly Flanigan, Ph.D., *Indiana U.*; Fonda Fry, M.A., *Ohio U.*

**Lect:** Mary Cortright, M.A., *Ohio U.*; Linn Forhan, M.A., *Ohio U.*; Jack Humbles, M.A., *Ball State U.*; Mary Kaye Jordan, M.A., *Ohio U.*; Pat Kelley, M.A., *U.C.L.A.*; Fran Lee, M.A., *Ohio U.*; Charles Mickelson, M.A., *Ohio U.*; Harry Neff, M.A., *American U., Cairo*; Sandra Nickel, M.A., *Ohio U.*; Cornelia Perdreau, M.A., *Ohio U.*; Mary Reichardt, M.A., *U. of Illinois.*

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